

760/800 STRAIGHT BLADES

2000/01

www.blizzardplows.com



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BLIZZARD™

760LD/760/800 MODELS
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760LD/760/800 MODELS

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BLIZZARD™

ASSEMBLY & OPERATION MANUAL

Model 760LD, 760 & 800 Snowplows

Introduction

Congratulations on purchasing the finest straight blade snowplow available! Blizzard straight blades are clearing new trails for innovative design, rugged durability, quality craftsmanship and superior performance. Our exclusive products are manufactured and tested in Michigan's Upper Peninsula, the snow capital of the Midwest. With an annual snowfall averaging over 250", we couldn't imagine building snow removal products anywhere else!

Your Blizzard straight blade is equipped with versatile features designed for years of dependable service. The hydraulic draw latch mounting system positively aligns the plow for fast installation or removal. All Blizzard straight blade snowplows feature an extended moldboard. This unique construction provides an additional 5" of blade that rolls snow farther ahead and to the side when plowing. Now you can move snow faster, saving fuel and reducing wear on your truck and plow. Safety features include full moldboard trip action, enclosed hydraulics and automatic cylinder pressure relief.

To ensure years of optimum snowplow performance, review the contents of this manual. It contains assembly information, detailed diagrams, complete parts listings, maintenance guidelines and troubleshooting tips.

Should you need additional information, contact your local Blizzard snowplow dealer. Their knowledgeable staff is well informed on the latest straight blade information. They are also your source for replacement parts, technical assistance and all service repairs.

Comments, suggestions or concerns?
Address all correspondence to:

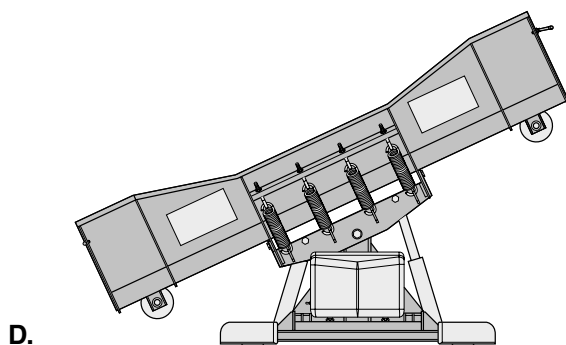
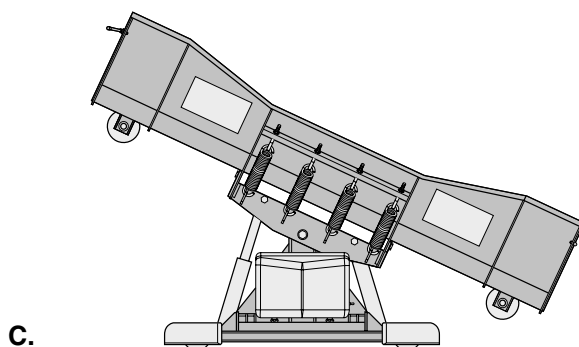
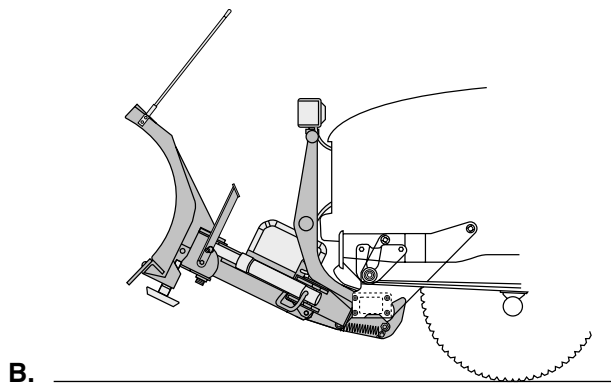
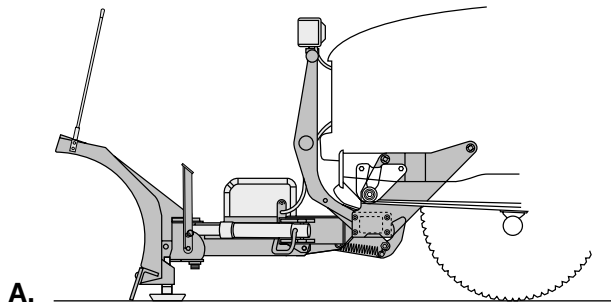
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SNOWPLOW OPERATION

Your snowplow is the most advanced and versatile straight blade on the market. The easy-to-use joystick control allows you to automatically adjust the plow blade into an infinite number of plowing positions. Review the illustrations below for instruction on maneuvering your snowplow.



A. Lowered or Float Position

Pushing the joystick forward, toward the “Lower/Float” designation on the label, will lower your straight blade to the ground. Pushing the joystick ahead until the detent “locks” the control will allow the snowplow to “float”, or follow the contour of the ground when moving forward or backward.

B. Raised Position

Pulling the joystick back, toward the “Raise” designation on the label, will lift your straight blade off of the ground. To stop raising the plow, simply return the joystick to its “neutral” or center position. The snowplow has reached its maximum raised position when the blade stops lifting – return the joystick to its neutral position.

C. Angled Right Position

To angle your straight blade to the right, position the joystick toward the “R” on the label. To stop angling the plow, return the joystick to its “neutral” or center position. The snowplow has reached its maximum angled position when the blade stops moving to either side.

D. Angled Left Position

To angle your straight blade to the left, position the joystick toward the “L” on the label. To stop angling the plow, return the joystick to its “neutral” or center position. The snowplow has reached its maximum angled position when the blade stops moving to either side.

WARNING!



WARNING:

Prior to operating your straight blade, review the WARNING! label at the passenger's side rear of the moldboard (shown below).



CAUTION:

Note: Read and understand all warnings indicated in this manual prior to operating the snowplow. Warnings and cautions in the manual are indicated by the icons shown to the left.

WARNING

1. Verify the main power switch on the control unit is in the "OFF" position when the snowplow is not in use.
2. Properly mount the snowplow prior to moving the vehicle.
3. Stand clear of the attachment area when mounting the snowplow to the undercarriage and operating the Power Hitch Connect/Disconnect switch. Failure to do so may result in serious injury or death.
4. Securely position all mounting pins prior to operating your snowplow.
5. Do not position your body between the snowplow and the vehicle when servicing or operating.
6. Position snowplow in such a manner as to not block your vision or plow headlights while in transit.
7. Do not change the position of the blade while in transit.
8. Do not exceed 40 mph when transporting plow.
9. Do not exceed 10 mph when plowing.
10. Always lower blade when vehicle is parked.
11. Vehicles equipped with air bags are designed to be activated in a frontal collision equivalent to hitting a solid object or barrier at approximately 14 mph or more.

WARNING

Careless or high speed driving while plowing snow, which results in vehicle impact deceleration equivalent to or greater than the airbag deployment threshold described above, would deploy the airbag.

Models 760 and 800 Blizzard snowplows have United States patents pending.

760/800
STRAIGHT BLADES

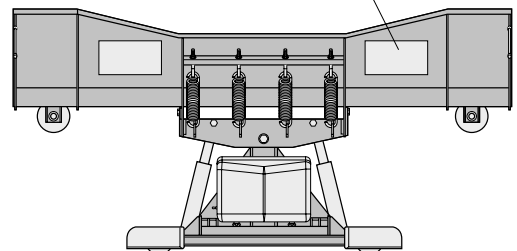
**READ
OWNER'S
MANUAL
THOROUGHLY
PRIOR TO
OPERATING
PLOW.**

 **BLIZZARD®
CORPORATION**

Calumet, Michigan 49913

BLZ 1024

Should the WARNING! label or any of the labels that came with your snowplow become hard to read or wear off, contact your local dealer or call our Customer Service Department toll free at 1-888-680-8600 for replacements.



ASSEMBLY INSTRUCTIONS

Unpacking & Inspection

Your Blizzard straight blade has been packaged to withstand transit and weather related damage. Fully inspect all components upon receipt of your plow. In the event of shipping damage or missing parts, immediately contact our Customer Service Department toll free at 1-888-680-8600.

Begin unpacking and inspection in the following order:

1. Remove packaging slip from the end panel of the pallet cover. Retain all documentation for your records.
2. Remove the polyethylene pallet cover from the crating.
3. All wood framing should be removed from the pallet for easy access to the snowplow.
4. Due to the odd shaped components and size of several assembly parts, various nylon ties and corrugates are used for scratch resistance and package orientation. Please remove these items prior to assembly.
5. Place the main blade assembly on a flat, level surface.

Once you have inspected all parts and removed all restraining and protective packaging materials, your snowplow is ready to be fully assembled.



Pallet Cover End Panel

The tear resistant woven polyethylene pallet cover contains a moisture barrier to help protect all packaged components and keep out the most inclement weather during shipping and storage. The end panel of the pallet cover contains important information regarding the make, model, and year of the vehicle the enclosed undercarriage is to be installed on. The plow model number and the serial number of the snowplow are given together. The first three digits and/or two letters in the the number indicated is always the plow model – 800 or 760LD – and the entire seven (nine) digit number make up the serial number. The packaging list is also attached to the end panel. Be sure to retain this list for your records.



Maximum Bolt Torque (Dry Conditions Only)

Diameter-Thread Pitch	Grade 8 (foot-pounds)
1/4"-20	11 ft-lbs
5/16"-18	24 ft-lbs
3/8"-16	44 ft-lbs
7/16"-14	70 ft-lbs
M12 x 1.75	88 ft-lbs
1/2"-13	107 ft-lbs
M14 x 2.0	140 ft-lbs
9/16"-12	154 ft-lbs
5/8"-11	211 ft-lbs
3/4"-10	376 ft-lbs
1"-08	900 ft-lbs

Note: Use 25% less torque when lubricated. Check and re-tighten all fasteners after the first three hours of use. Periodically review all fasteners after the initial inspection.

Moldboard Assembly

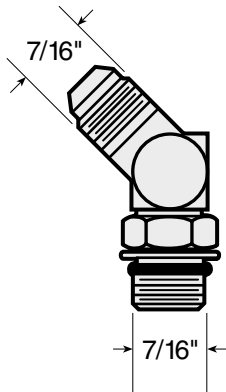
1. Begin the moldboard assembly by positioning the PIVOT BEAM and A-FRAME near the connecting points at the rear of the blade between the two center support ribs. Position the pivot beam between the two support ribs until the connecting points on the beam align with those on the plow. Insert one 3/4"-10 x 3" hex head screw through each mounting hole and secure with a 3/4"-10 top lock nut. Tighten each nut until approximately two threads appear.



CAUTION: Do not over tighten hex head nuts! Binding may prohibit the pivot beam from moving properly on the plow.

2. Hook each EXTENSION SPRING to the 3/4" diameter receiving holes located on the pivot beam and connect the opposite end of the spring to their respective SPADE BOLTS. Install the four 5/8"-11 x 6-11/16" (three 5/8"-11 x 5" for 760LD only) spade bolts through the EXTENSION SPRING MOUNTING ANGLE on the top rear of the blade. Secure each spade bolt by placing one 5/8" flat washer on the bolt and thread one 5/8"-11 nylon insert lock nut. Tighten each lock nut until light appears between the coils of the spring.
3. Install the flexible BLADE GUIDES at the end of each plow wing. Insert the 5/16"-18 x 1" hex head screw through the holes provided at the top of the wing reinforcement rib. Tighten all screws using the nylon insert lock nuts provided.

Congratulations! You have successfully completed the first stage of assembly for your Blizzard straight blade. In the next section you will assemble the A-frame and the components that are attached to it.



45° Adjust. Elbow O.R.B. Adapter

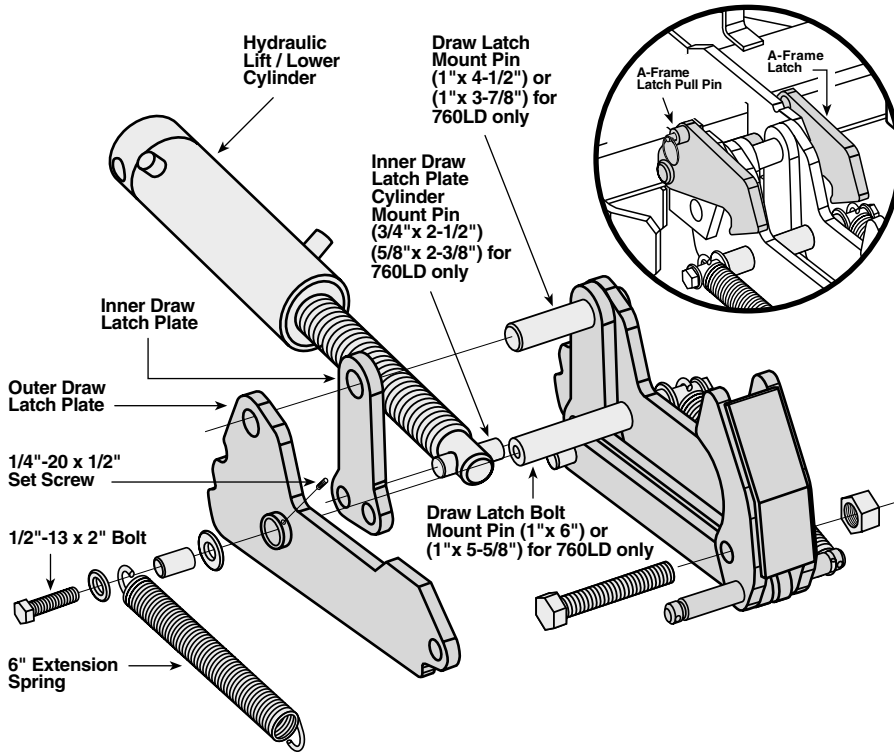
A-frame Assembly

1. Begin the assembly by positioning the A-frame so the factory-installed HYDRAULIC LIFT CYLINDER is visible. *Note: To aid in the installation, stand the plow up with the curve of the blade facing the ground.* Next, remove both of the plastic dust caps from the hydraulic cylinder ports. Attach one 7/16"-20 x 7/16"-20 45° ADJUSTABLE ELBOW O.R.B. ADAPTER to the driver's side port and one 7/16"-20 x 7/16"-20 MALE O.R.B. CONNECTOR ADAPTER to the passenger's side port. All of the hydraulic adapters can be found packaged with the manifold assembly. Hand tighten each adapter until snug, then torque approximately 1-1/2 to 2-1/2 flats. Reference the table on page 5 for proper torque specifications.
2. Once the adapters have been installed on the cylinder, connect the HYDRAULIC HOSES. The 45° adapter on the driver's side of the cylinder receives a 1/4" x 17" hose identified by a label containing the number 3. Connect the 45° angle on the hose to the hydraulic adapter on the cylinder. The male connector adapter on the passenger's side of the cylinder receives a 1/4" x 15" hose identified by a label containing the number 4. Tighten the 45° end of the hose to the hydraulic adapter on the cylinder.



Male O.R.B. Connector Adapter

- Next, use a screwdriver to pull the hydraulic cylinder rod out from its base. Place one 1-1/4" (1", 2" O.D. for 760LD only) diameter washer over the cylinder rod, followed by the 12" COMPRESSION SPRING and another 1-1/4" (1", 2-1/4" O.D. for 760LD only) washer. Compress the coils approximately 2" and clamp the spring and washers in place using a pair of vise grips. This will help facilitate the draw latch installation.

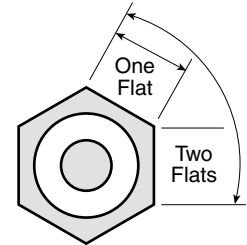


- Begin the draw latch installation by first removing both of the 6" extension springs on the latch. Proceed to remove both 1/2"-13 x 2" bolts with washers and spacers from the DRAW LATCH BOLT MOUNT PIN. Once the springs and hardware have been removed, loosen the SET SCREW on the OUTER DRAW LATCH PLATE using a 1/8" Allen wrench and remove the draw latch bolt mount pin from the assembly.

Next, remove the 1" x 4-1/2" (1" x 3-7/8" for 760LD only) DRAW LATCH MOUNT PIN from the assembly. By removing this pin, the INNER DRAW LATCH PLATES can swing free. Proceed to remove the 3/4" x 2-1/2" (5/8" x 2-3/8" for 760LD only) INNER DRAW LATCH PLATE CYLINDER MOUNT PIN. Position the plates on either side of the lift/lower cylinder rod and insert the 3/4" x 2-1/2" (5/8" x 2-3/8") pin through the plates and cylinder rod. *Note: The A-FRAME LATCH, located at the rear center of the A-frame, should be in the down position. Pull the A-FRAME LATCH PULL PIN out and rotate the latch clockwise if it is in the raised position.* Now that the cylinder is connected to the inner draw latch plates, rotate the draw latch assembly toward the draw latch mount holes on the A-frame. Align the holes in the outer draw latch plate with those of the inner draw latch plates and the A-frame. Secure the assembly to the A-frame by replacing the draw latch mount pin. Remove the vise grips from the cylinder rod. This will allow the compression spring to expand against the draw latch.

Draw Latch Assembly

The draw latch consists of a series of interconnected plates and pins that attach to the A-frame and the hydraulic cylinder that raises and lowers the plow. The draw latch is also the most difficult component to install on the entire plow and may require the help of a second technician.



Torque Table for 37° Adapters

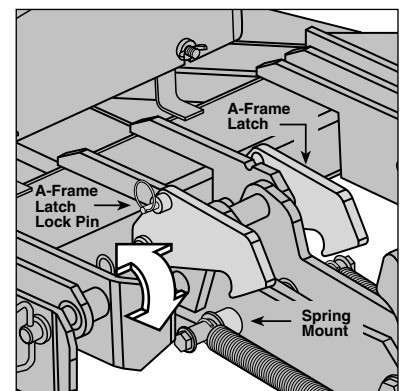
Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly (F.F.F.T.)
7/16-20	15 ± 1.0	2.5 ± 2.5
9/16-18	18 ± 2.0	2.5 ± 2.5

Torque Table for O.R.B. Adapters

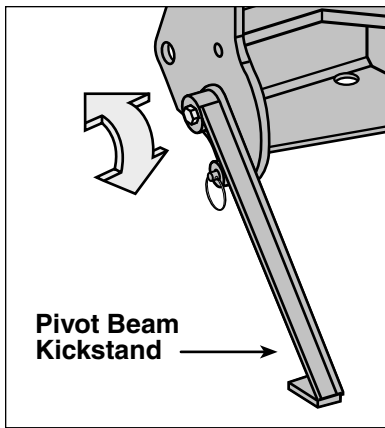
Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly (F.F.F.T.)
7/16-20	15 ± 1.0	1.5 ± 2.5
9/16-18	25 ± 2.0	1.5 ± 2.5

F.F.F.T. = Flats From Finger Tight

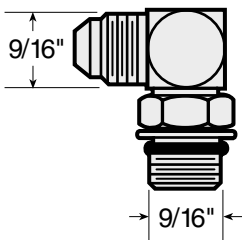
Ex.) After threading a 7/16-20 O.R.B. adapter finger tight, torque the fitting approximately 1-1/2 flats (faces) for proper installation.



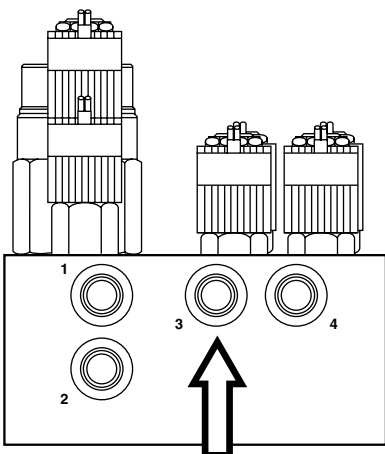
To mount the straight blade, the A-frame latch should be lowered over the spring mount – this allows the draw latch to pull the plow into the undercarriage. Once the plow is safely attached to the undercarriage, rotate the A-frame latch counterclockwise until the lock pin snaps in place. The A-frame latch is only used to mount the plow.



The kickstand is mounted to the side of the pivot beam with one 9/16"-12 x 2-1/2" hex cap screw and top lock nut. To pivot the kickstand, simply pull the lock pin out and rotate the leg until the pin snaps into place.



90° Adjust. Elbow O.R.B. Adapter



Port #3 Contains A Check Valve with 3/64" Diameter Orifice

Rotate the A-frame latch counterclockwise until the A-frame latch pull pin locks into place. Next, replace the draw latch bolt mount pin. The pin should be evenly spaced on either side of the outer draw latch plates. Tighten the set screw to secure the pin in place. Complete the draw latch assembly by replacing the washers, spacers, extension springs and bolts on both sides of the draw latch bolt mount pin.

5. Position each ANGLE CYLINDER with the rod end of the cylinder in the pivot beam and the hydraulic hose port facing away from the A-frame. Secure the cylinder to the pivot beam with one 3/4"-10 x 5" (3/4"-10 x 4" for 760LD only) hex cap screw and one 3/4"-10 top lock nut. Extend each cylinder rod until the cylinder base mounting hole aligns with the hole on the A-frame angle cylinder bracket. At this point, insert one 3/4"-10 x 5" (3/4"-10 x 4") hex cap screw through the aligned holes and secure the screw with one 3/4" top lock nut. Repeat the same installation for the opposite angle cylinder.
6. Remove each dust cap from both of the hydraulic angle cylinder ports and attach one 9/16"-18 x 9/16"-18 90° ADJUSTABLE ELBOW O.R.B. ADAPTER to each port. Angle each adapter toward the cutting edge and tighten approximately 1-1/2 flats. Connect the 3/8" x 24" hydraulic hose, labeled #1, to the driver's side angle cylinder adapter. Attach the 3/8" x 24" hydraulic hose, identified by a #2, to the passenger's side angle cylinder adapter. Be careful not to overtighten the hose connections.

Once you have completed the installation of the angle cylinder hoses, we will shift our attention to assembly of the manifold. The manifold, pump and plow electrical harness have been joined together at the factory; however, the manifold contains several attachments that you will need to install prior to securing the assembly to the A-frame.

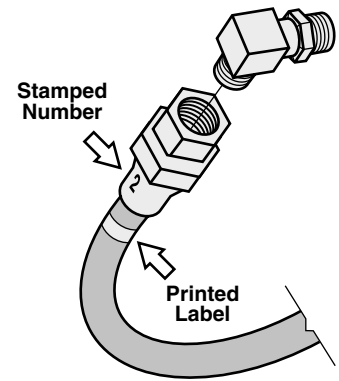
7. Each of the 4 HYDRAULIC HOSE PORTS on the MANIFOLD contain DUST CAPS. Replace each cap with the appropriate hydraulic adapter illustrated on page 7.

Note: All ports are identified by a stamped number on the manifold. The numbers also identify the hydraulic functions which can be referenced on the label under the hydraulic pump and manifold cover (see page 7).

CAUTION: Port #3 contains a CHECK VALVE & ORIFICE that restricts the returned hydraulic fluid for the float function. Verify that this item is in the port prior to attaching hydraulic adapters.

8. Next, align the mount holes in the pump with the holes in the hinged bracket, located on the A-frame. *Note: To help facilitate the pump mount, first angle the hinged bracket as needed and tighten the bracket hardware, locking it in place.* Secure one 3/8"-16 x 3/4" hex cap screw and 3/8" flat washer through the top mount hole in the bracket and into the pump. Insert one 3/8"-16 x 1-1/2" threaded stud and jam nylon insert lock nut through the bottom mount hole in the bracket and into the pump.
9. Once the pump and manifold assembly is in place, connect the hydraulic hoses to their respective adapters on the manifold. Remember, the labeling on the hydraulic hoses correspond with the stamped numbers on the manifold.

Begin installing the hoses with the driver's side raise cylinder hose (#3). Attach the straight end of the hose to the 7/16"-20 x 9/16"-18 90° swivel elbow adapter on the manifold. Connect the passenger's side lower cylinder hose to Port #4. Loop the hose through the opening in the A-frame and connect the straight end of the hose to the 7/16"-20 90° swivel elbow adapter. Run both angle cylinder hoses (#1 and #2) under the A-frame angle and through the opening in the A-frame to their respective manifold ports. *Note: All hoses should be routed through the triangular openings in the A-frame.*



All of the hoses shipped with the snowplows contain either a stamped number on the sleeve or a printed label applied to the hose. All numbers, stamped or printed, correspond with the stamping of the ports on the manifold.

The Sequencing Valve & Hydraulic Hose Identification Guide (left) is located under the pump and manifold cover.

NOTE: Two different hydraulic adapter kits were sent with straight blade models 760 and 800 during the season.

* The first kits shipped (P/N 60070) contained two additional 9/16"-18 90° Swivel Elbow Adapters, one additional 9/16"-18 x 9/16"-18 Male O.R.B. Connector Adapter, and a Tube Reducer with Swivel Nut.

** The second kits shipped (P/N 60075) contain one 7/16"-20 x 9/16"-18 90° Swivel Elbow Adapter and one Male Extra Long Elbow Adapter.

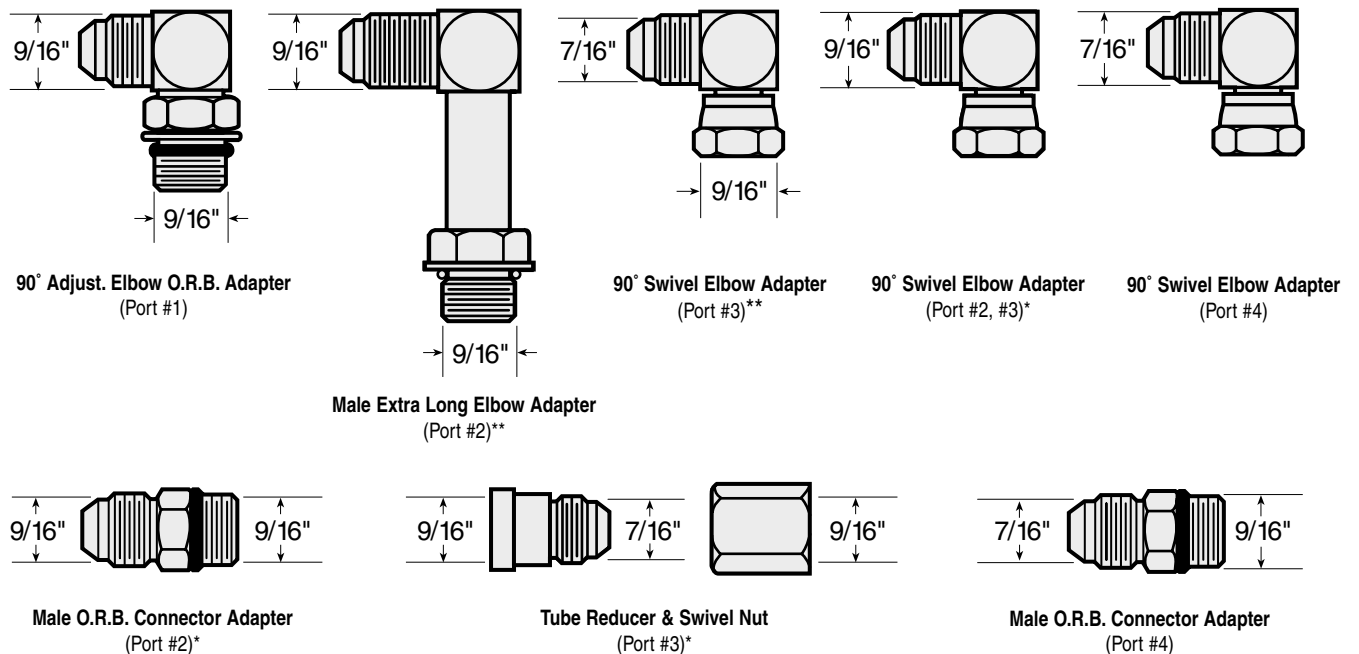
Hydraulic Hose Identification Guide (Models 760LD, 760 & 800)

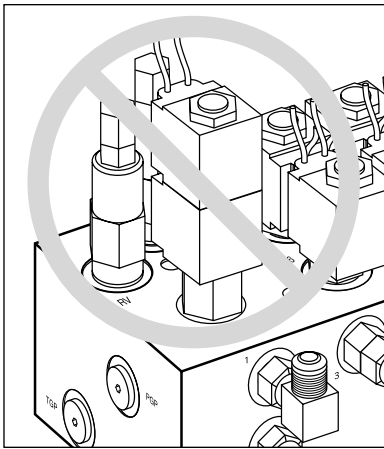
HYDRAULIC HOSES	
Port Identification	Function
1	Right Angle
2	Left Angle
3	Raise
4	Lower

NOTE: Energize the following solenoids for the functions:

S1	Angle Right
S2	Angle Left
S3 & S4	Lift
S5 & S6	Lower
S4 & S6	Float

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Calumet, Michigan 49913 BLZ 1025 REV 1





When installing the manifold between the mount brackets on the A-frame, **DO NOT** handle the manifold by the wire lead coils. The solenoid cartridges can bend, causing them to stick when activated. Always carry the manifold by the sides of the aluminum block.

- Complete the A-frame assembly by securing the manifold to the A-frame. Remove both 3/8" flat washers, 3/8" split lock washers and 3/8"-16 x 1" hex cap screws from the manifold and align the mount holes with the A-frame brackets. Properly replace and tighten all hardware.



CAUTION: When installing the manifold between the mount brackets on the A-frame, hold the manifold at the sides of the block. Never handle the manifold by the wire lead coils. Doing so can cause a solenoid cartridge to bend, causing the cartridge to stick when activated.

Congratulations! You have successfully completed half of the installation. Don't quit now! You're nearly out of the garage!

Electrical Assembly - Plow Harness

For your convenience, both the BLACK GROUND WIRE from the PLOW WIRE HARNESS and the SOLENOID GROUND WIRE HARNESS have been grounded to the manifold assembly.

- Begin the installation by connecting the RED POWER WIRE to the PUMP motor terminal using the hardware provided on the pump.
- Next, attach the POWER HITCH CONNECT/DISCONNECT TOGGLE SWITCH to the connector on the plow harness. Remove the lock washer and hex jam nut from the switch and insert it into the mounting bracket. Tighten the lock washer and jam nut until the switch is firmly in place.
- Continue the harness installation by connecting the FEMALE ELECTRIC CONNECTOR on the harness to the MALE ELECTRIC CONNECTOR found on the HEAVY-DUTY COIL WIRE LEAD HARNESS attached to the manifold. Perform the same connection at the solenoid ground wire harness and coil wire lead harness.
- Finalize the harness installation by neatly positioning the DIODE BOARD and loose wiring behind the toggle switch. Position the wire harness braid in the notch on the switch bracket and secure it with a nylon tie.
- To install the PUMP & MANIFOLD COVER, position it over the rear brackets on the A-frame and align the notches in the cover with the welded screws on the brackets. Secure the cover with two 3/8" washers and wing nuts. Verify the cover is positioned behind the toggle switch mount bracket. Pop the front of the cover on the threaded stud and secure it with one 3/8" washer and wing nut.

Congratulations! You have just completed building the finest snowplow available! However, the vehicle wire harness still needs to be installed. That is the focus of the second half of the electrical assembly instruction.

Electrical Assembly - Vehicle Harness



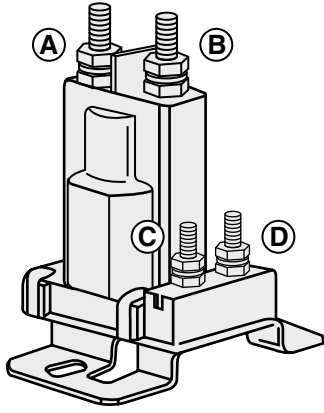
CAUTION: Always perform the vehicle wire harness assembly with the vehicle off and the keys out of the ignition. Use caution when testing the electrical wires for the vehicle's headlight functions.

1. Begin the installation of the electrical harness under the hood. Insert the WHITE POWER CONNECTOR & RED POWER WIRE (with FUSE) end of the harness through the driver's side fire wall access panel into the vehicle cab. *Note: You may need to widen an opening or cut access to the cab interior to facilitate the assembly.*
2. Loosely position the remaining portion of the harness over the driver's side fender well and in front of the radiator core support. Position both of the large, gray VEHICLE HEADLIGHT CONNECTORS near the truck headlights and the smaller, black PLOW HEADLIGHT CONNECTORS near the grill of the vehicle.
3. Proceed to remove the front directional light assembly on the driver's side of the vehicle. Feed the VIOLET, turn light wire and GRAY, run light wire from the wire harness through the opening in the directional light housing. At this point, use a test light or ohm meter to determine the proper wires in the vehicle's electrical system to splice into. Once you have identified the proper wires, position one end of the turn or run light wire into a SPLICE LOCK CONNECTOR provided. Attach the vehicle wire to the opposite side of the splice lock connector. Complete the splice by pinching both wires together and locking the connector. Repeat the splice procedure for the remaining wire. The passenger's side directional light assembly requires the same installation; however, only one wire, the PINK, turn light, needs to be spliced.
4. Connect the vehicle headlights to the vehicle wire harness using a headlight adapter kit. Due to differences in the construction of the adapter kits and the various make and model vehicles you will be servicing, the headlight adapter kits are not packaged with your snowplows. Review the list of available light adapters to the right. To place an order for headlight adapter kits, contact our Customer Service Department at 1-888-680-8600.

Vehicle Headlight Adapter Kits

62010	1980 & Older, 1983-1993 Dodge 1995-1996 Chevrolet/GMC & Ford
62011	1987-1992 Ford, 1991-2000 Dodge
62012	1993-2000 Ford
62013	1990-1999 GMC, 1991-1999 Chevrolet (Except '99 Chevrolet Silverado & '99 GMC Sierra)
62014	1999-2000 Chevrolet Silverado & GMC Sierra with Daytime Running Lights
62015	1989 Chevrolet
62050	2000 Dodge
62051	1980 & Older Chevrolet/GMC, Dodge

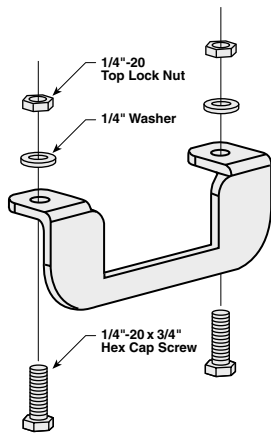
Begin the adapter kit installation by removing the existing vehicle headlight connector from the headlight. Attach the HEADLIGHT ADAPTER CONNECTOR to the existing vehicle headlight connector. Next, plug the BLACK, FIVE-PIN CONNECTOR on the headlight adapter into the gray, five-pin connector on the vehicle wire harness. Lastly, plug the HEADLIGHT ADAPTER CONNECTOR into the vehicle headlight receptacle. *Note: If more than one plug is present, match the colors of each connector (ie gray to gray, black to black, Chevrolet daylight running is clear to gray).* Repeat the installation for the opposite headlight.



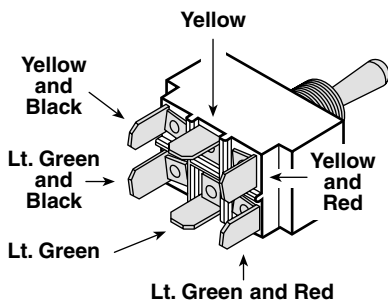
Heavy-Duty Power Contactor

There are four wires that need to be attached to the power contactor:

- (A) 72" Red Power Battery Wire
- (B) Vehicle Wire Harness Red Power Wire
- (C) 24" Black Ground Wire
- (D) Brown Pump Solenoid Activation Wire



Vehicle Wire Harness Plug Mount Bracket



Vehicle / Plow Headlight Toggle Switch

Connect the wires from the vehicle harness to the spades on the back of the Vehicle/Plow Toggle Switch. Review the diagram above for proper orientation of the color-coded wires.

5. After the headlight adapters have been installed, attach the POWER CONTACTOR to the driver's side wheel well or engine fan guard using two 12-14 x 3/4" hex washer self-drilling screws. *Note: Some model vehicles provide mount locations for accessory components.* Connect the 24" BLACK GROUND WIRE to either small terminal on the contactor and attach the opposite end to the vehicle with one #10 x 1/2" hex washer self-drilling screw. Locate the BROWN PUMP SOLENOID ACTIVATION WIRE on the vehicle wire harness and position the eyelet over the remaining small terminal on the contactor. Secure it with the washer and nut provided.
6. Next, connect the BLACK VEHICLE WIRE HARNESS GROUND WIRE to the negative terminal on the vehicle's battery. *Note: The black ground wire may not be long enough to reach the battery on some vehicles. Ground the wire to the engine if this should occur.* The VEHICLE WIRE HARNESS RED POWER WIRE connects to either large terminal on the contactor. Complete the electrical connection by attaching the remaining RED POWER BATTERY WIRE to the open terminal on the contactor. *Note: Depending on the location of the battery, you may need to shorten the red power wire. Upon determining the proper length, crimp the provided 3/8" END RING TERMINAL on the wire and connect it to the positive terminal on the battery.*
7. Once the connections to the battery are secured, proceed to fasten the SPLIT LOOM TUBING to the vehicle. Safely route all harness lengths around the engine components and attach them to the vehicle with nylon ties. Extend the PLOW HEADLIGHT CONNECTORS through the grill of the vehicle and position the HARNESS PLUG and WEATHER CAP near the bumper.



CAUTION: Do not fasten the wire harness to areas that come in contact with moving engine parts or possess extreme heat. The harness could become tangled and/or melt causing electrical failure and vehicle damage.

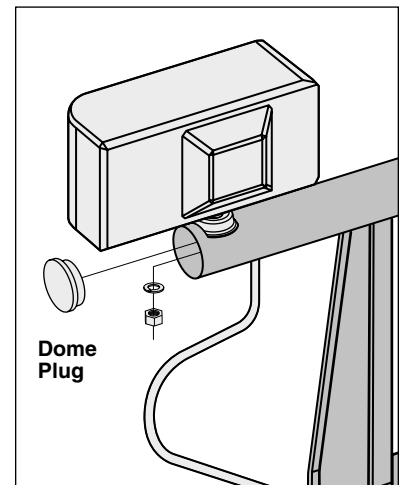
8. Locate a convenient position to mount the VEHICLE WIRE HARNESS PLUG MOUNT BRACKET near the driver's side bumper of the vehicle. This bracket will hold the plug to the vehicle when the snowplow is removed from the undercarriage. Position the bracket into the slot provided on the plug. Mount the bracket using two 1/4"-20 x 3/4" hex cap screws and secure with 1/4" washers and top lock nuts.
9. Return to the driver's side cab interior to install the remainder of the vehicle wiring harness. Find an accessible location for the PLOW HEADLIGHT SWITCH & BRACKET under the dashboard. Install the headlight bracket using two self-drilling screws. Insert the headlight toggle switch through the bracket and secure with the hardware provided. Attach all 6 color coded wires from the harness to the backside of the switch (Refer to diagram at the left for proper installation). Connect the RED POWER WIRE (with 10 AMP FUSE) to a SWITCHED POWER SOURCE with a minimum of 10 amps. *NOTE: The red power wire MUST be fused and switched on and off with ignition. Secure all loose wires under the dashboard.*

10. Next, install the LIGHT TOWER. Position the tower arms into the receiving pockets located on the undercarriage push beam. (Review the proper undercarriage installation guidelines for your vehicle found near the back of the manual.) Align the mounting holes in the light tower with those on the push beam and insert two 1/2"-13 x 1-1/4" hex head cap screws. Secure the screws with 1/2" washers and top lock nuts.

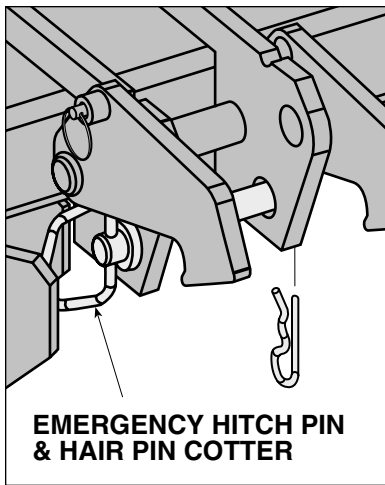
11. Proceed to install the PLOW HEADLIGHTS. Align one HEADLIGHT BALL STUD MOUNT ADAPTER on the light tower tube with the mounting hole and insert the threaded stud through each. Secure the headlight with one 1/2" split lock washer and hex nut. *Note: All snowplows are shipped with two BLACK DOME PLUGS that install at either end of the light tower. For secure placement, apply a bead of silicone around the perimeter of the plug prior to installation on the light tower.* Connect the terminals from the plow lights to the terminals on the vehicle wire harness. Repeat the installation for the opposite headlight.

12. Align the four mount holes on the JOYSTICK CONTROL with the holes located on the JOYSTICK BENCH MOUNT PEDESTAL. *Note: The radius on the pedestal should face the dashboard.* Secure the joystick to the pedestal with four 8-32 x 3/4" machine screws provided. Next, slide the VELCRO STRAP through the slots cut in the pedestal. The metal D-RING should be located on the side opposite of the dashboard. Wrap the strap around the bench and fasten. Finally, connect the white power connector from the vehicle wire harness to the connector on the control station. The power switch on the joystick should be in the "OFF" position.

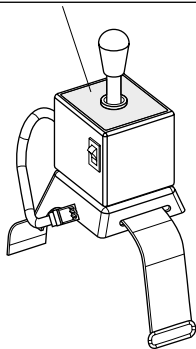
This completes the electrical assembly installation for the vehicle wire harness. You are now ready to perform all of the test functions on the snowplow.



Apply a thin bead of silicone around the inside perimeter of the molded nylon dome plugs prior to capping the light tower ends. The silicone will help retain the plug inside of the light tower mount tube.



In the event you should lose hydraulic power while snowplowing, raise the snowplow into a pile of snow and insert the emergency hitch pin. The pin will lock the plow in a temporary raised position until proper service can be performed to restore hydraulic power.



Testing The Snowplow

1. Fill the HYDRAULIC PUMP FLUID RESERVOIR with automatic transmission fluid until it is 3/4" from the top of the tank. Replace the cap on the reservoir. Proceed to remove the weather caps from each of the plow and vehicle wire harnesses and connect the plugs. Turn the POWER SWITCH on the joystick in the cab to the "ON" position and start the vehicle. You now have power to the snowplow. Once all of the hydraulic functions have been executed, the system will have been filled with approximately 3 to 3-1/2 quarts of automatic transmission fluid.
2. Raise the DRAW LATCH on the snowplow by pushing and holding the toggle switch on the A-frame upward into the "CONNECT" position. Notice the action of the fluid in the reservoir. By activating the initial hydraulic function, the fluid begins to fill the system. Push and hold the toggle switch in the "DISCONNECT" position, the draw latch will lower. Refill the reservoir until the fluid is 3/4" from the top of the tank.
3. Position the vehicle such that the draw latch is below the push beam and the mounting points on the A-frame are in line with the mounting points on the undercarriage. Pull out the A-FRAME LATCH PIN and rotate the A-FRAME LATCH clockwise until the latch is resting on the DRAW LATCH BOLT MOUNT PIN. Move the snowplow in position by activating the draw latch CONNECT switch and release.



WARNING: Always use caution when operating the draw latch CONNECT/DISCONNECT switch. Keep your hands and feet away from the operation of the draw latch and the main blade. The action of the draw latch moves the snowplow in position for proper attachment to the vehicle. Failure to follow this caution may result in serious injury or death.


The draw latch will raise until it hits the push beam and the DRAW LATCH FINGERS will pull the plow into the vehicle. The mounting points on the plow and vehicle are now positively aligned. Rotate the A-frame latch counterclockwise until the latch is in the raised position. Insert the two HITCH PINS through the mounting holes on the A-frame and secure each with one hair pin cotter. The snowplow is now securely mounted to the vehicle.

4. Return to the interior of the vehicle. With the plow securely in place, you can now execute the remaining functions of the snowplow. The power supply on the joystick should be in the "ON" position. Next, raise the plow to its maximum height by pulling back ("RAISE") on the joystick. Angle the snowplow to the left by moving the joystick toward the "L" (left angle) on the label. If the plow function is slow or delayed, the hydraulic fluid is filling the cylinder and replacing the air in the system. Continue testing the remaining joystick functions. Monitor the fluid level in the reservoir and fill to 3/4" from the top of the tank if needed. Also, look for any automatic transmission fluid leaks around the manifold, pump, hydraulic hoses and all cylinders.
5. Lastly, check that the vehicle and plow headlights are in proper working condition including the turn signals. If necessary, adjust the plow headlight beams with the plow in the raised position.

Congratulations on a successful assembly and installation! Once all of the blade and electrical functions have been tested your Blizzard straight blade is ready for action. Should you need additional support during a plow assembly or undercarriage installation, contact our Customer Service Department toll free at 1-888-680-8600.

MOUNTING & DISMOUNTING INSTRUCTIONS

Prior to operating your straight blade, review the Mounting & Dismounting Instructions label at the driver's side rear of the moldboard (shown below).

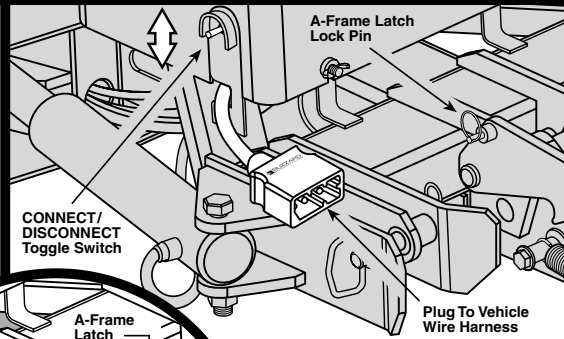


POWER HITCH
TM

MOUNTING & DISMOUNTING INSTRUCTIONS

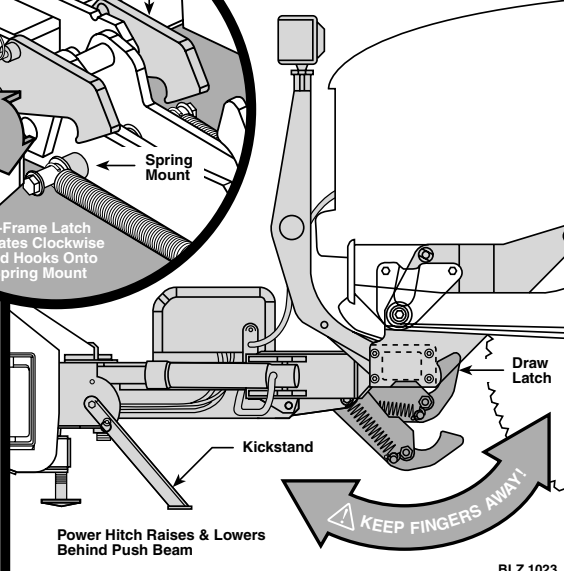
MOUNTING

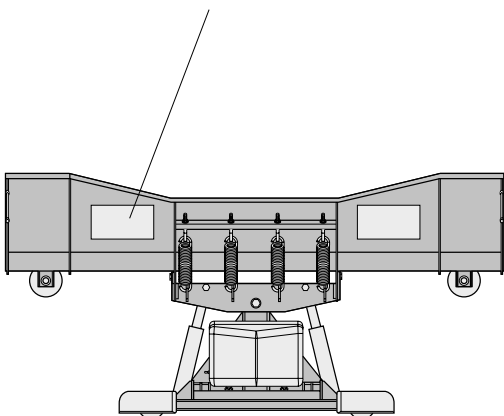
1. Position vehicle close to the plow and align mounting points on the undercarriage and A-frame. Verify that the plow kickstand is in the lowered position. Turn vehicle ignition off.
2. Turn power supply switch on the main plow control unit in the vehicle to the "OFF" position.
3. Remove protective weather caps and make electrical connection at the plow and vehicle.
4. Turn the vehicle ignition and the power supply switch on the control unit to the "ON" position. Pull the A-frame latch lock pin outward and verify that the A-frame latch lowers over the draw latch extension spring mount.
5. Activate the Power Hitch on the A-frame by pushing and holding the "CONNECT/DISCONNECT" switch (on the pump cover housing) upward. **CAUTION: Keep fingers away from plow and truck mounting points. Power Hitch will automatically pull the plow into the receiving points on the truck when activated.** Insert both hitch pins through the positively aligned holes on the plow and undercarriage and secure each with a hair pin cotter.
6. With the plow securely mounted, slightly lower the Power Hitch to relieve tension on the A-frame latch, pull the latch lock pin and raise the A-frame latch until it locks into position. Raise the Power Hitch and verify that the draw latch is fully engaged behind the push beam on the vehicle. Rotate the kickstand counterclockwise until it locks into place. The plow is now properly mounted and ready to operate.



DISMOUNTING

1. Lower the plow on a flat, level surface to dismount. Turn vehicle ignition off.
2. Pull the kickstand lock pin outward and rotate the kickstand clockwise. Release the pin to lock kickstand in place. Remove both hitch pins from the A-frame and undercarriage.
3. Turn the vehicle ignition and the power supply switch on the control unit to the "ON" position. Activate the Power Hitch by pushing and holding the "CONNECT/DISCONNECT" switch downward. **CAUTION: Keep fingers away from plow and truck mounting points.** Verify that the draw latch is fully disengaged from behind the push beam on the vehicle.
4. Turn power supply switch on the main plow control unit in the vehicle to the "OFF" position.
5. Disconnect wire harnesses at the plow and vehicle. Replace protective weather caps.





Should the Mounting & Dismounting Instructions label or any of the labels that came with your snowplow become hard to read or wear off, contact your local dealer or call our Customer Service Department at 1-888-680-8600 for replacements.

STORING YOUR SNOWPLOW

Placing Your Plow In Storage

- 1.) Position your plow on a flat, level surface for storage. Follow the dismantling procedure illustrated on page 13.
- 2.) Apply white lithium grease to all electrical plugs and connections. Clean and install all dust caps.
- 3.) Lubricate all exposed hydraulic cylinder rod ends with liquid white lithium grease.
- 4.) Touch-up all rust spots or chipped paint with white Blizzard paint. Contact your local dealer for availability.
- 5.) Remove and properly discard the fluid in the pump reservoir. Clean the pump filter and replace the automatic transmission fluid to within 3/4" from the top of the reservoir. Changing the fluid annually will prolong the life of your pump and manifold.
- 6.) Cover the snowplow with a tarp if stored outside. This will protect your plow from sun fading and inclement weather which can lead to accelerated corrosion.

Removing Your Plow From Storage

- 1.) Perform all regular maintenance indicated on the previous page.
- 2.) If you have not replaced the ATF in the pump reservoir, it is strongly encouraged that you do so prior to operating your plow.
- 3.) Follow the mounting procedure illustrated on page 13.
- 4.) Once the plow has been properly mounted to the vehicle and all electrical connections have been made, initiate all of the functions of the snowplow. Monitor the fluid level in the reservoir and fill to 3/4" from the top of the tank if needed.

Annual Fluid Replacement	
Type & Quantity of Fluid Replaced	Date

PLOW SPECIFICATIONS

Moldboard

<i>Length</i>	
760LD	7'-6"
760	7'-6"
800	8'-0"
<i>Thickness</i>	12 Gauge
<i>Height</i>	
760LD	28"
760 & 800	29"
<i>Reinforcement</i>	
760LD	4 Ribs @ 3/16"
760 & 800	6 Ribs @ 1/4"
<i>Cutting Edge</i>	
760LD & 760	3/8" x 6" (1080)
800	1/2" x 6" (1080)
<i>Finish</i>	Powder Coat - White

Trip Mechanism

<i>Trip Spring Type</i>	
760LD.....	(3) 3/8" Hooked Extension
760 & 800.....	(4) 3/8" Hooked Extension
<i>Trip Spring Adjustment</i>	
760LD	(3) 5/8"-11 x 5" Spade Bolt
760 & 800	(4) 5/8"-11 x 6-11/16" Spade Bolt

A-frame

<i>Material</i>	Rec. Tube & Channel Type
<i>Hitch Pins</i>	3/4" x 4-3/4" Yellow Zinc
<i>Finish</i>	Powder Coat - Black

Pump

<i>Construction</i>	Steel Housing w/Clear Plastic Tank
<i>Type</i>	Internal Gear Pump
<i>Motor</i>	12 V Starter
<i>Volume Per Minute</i>	2.1 GPM @ 1500 PSI
<i>Weight</i>	32 lb.
<i>Mount</i>	A-frame Install w/Hex Head Screws
<i>Reservoir Capacity</i>	1.5 quarts
<i>Controls</i>	Toggle Switch & Joystick

Manifold

<i>Construction</i>	Clear Anodized Aluminum
<i>Ports</i>	4
<i>Cartridge Valves</i>	5
<i>Relief Valves</i>	2
<i>Weight</i>	11 lb.
<i>Mount</i>	A-frame Install w/Hex Head Screws
<i>Maximum Flow Capacity</i>	2 gpm

Angle Cylinders

<i>Operating Speed</i>	
760LD	2 sec.
760 & 800	3.5 sec.
<i>Stroke</i>	
760LD	9-3/8"
760 & 800	10"
<i>Ram Diameter</i>	
All Models	1-3/4"
<i>Bore Diameter</i>	
All Models	2"

Lower/Raise Cylinder

<i>Operating Speed</i>	
760LD	1.5 sec.
760 & 800	3.5 sec.
<i>Stroke</i>	
760LD	4"
760 & 800	4-21/32"
<i>Ram Diameter</i>	
760LD	1"
760 & 800	1-1/4"
<i>Bore Diameter</i>	
760LD	1-3/4"
760 & 800	2-1/2"

Plow Headlights

<i>Type</i>	Low Profile w/Turn Signals
<i>Measurements</i>	10-3/4" W x 5"H x 5-3/2"D
<i>Housing</i>	Plastic Composite
<i>Mount</i>	Adjustable Ball Type
<i>Bulb Type</i>	High/Low Sealed Beam Halogen, 12V Rect.
<i>Switch Type</i>	Dash Mount, Toggle

Miscellaneous

<i>Plow Weight*</i>	
760LD	Approx. 550 lb.
760	Approx. 720 lb.
800	Approx. 750 lb.
<i>Adjustable Plow Shoes</i>	
760LD	(2) Standard
760 & 800	(2) Heavy-Duty Cast Steel
<i>Mount Mechanism</i>	Hydraulic Draw Latch
<i>Control Station</i>	Joystick

*Plow weight does not include vehicle undercarriage.

Unless otherwise indicated, all specifications are for Models 760LD, 760 & 800 snowplows.

MODELS 760LD, 760 & 800 PARTS LIST

Ref. No.	Part No.	Quantity			Part Description
		760LD	760	800	
1	81006	1	N/A	N/A	Moldboard - Model 760LD
	84006	N/A	1	N/A	Moldboard - Model 760
	80006	N/A	N/A	1	Moldboard - Model 800
2	61165	1	N/A	N/A	Moldboard Cutting Edge (1080) - Model 760LD
	61168	N/A	1	N/A	Moldboard Cutting Edge (1080) - Model 760
	61209	N/A	N/A	1	Moldboard Cutting Edge (1080) - Model 800
3	61196	8	8	8	1/2"-13 x 1-1/2" P Carriage Bolt
4	61026	12	4	4	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength
5	61020	10	2	2	1/2"-13 Grade C Z Top Lock Nut
6	61248	N/A	8	8	1/2"-13 Nylon Insert Lock Nut - Type NE
7A	61049	2	2	2	Plow Guide Assembly: (1) - 7 & 8, (2) - 9 & 10
7	61113	2	2	2	Plow Guide Tip, Black
8	61050	2	2	2	27-1/4" Plow Guide, Red
9	61051	4	4	4	5/16"-18 x 1" Grade 5 Z Hex Head Cap Screw
10	61052	4	4	4	5/16"-18 Z Nylon Insert Lock Nut
11	61188	3	4	4	5/8"-11 Nylon Insert Lock Nut - Type NE
12	61064	3	4	4	5/8", 1-5/16" O.D., 21/32" I.D. YZ SAE Mil-Carb High-Strength Washer
13	61201	3	4	4	5/8"-11 x 5" Grade 8 Z Clear Chromate Spade Bolt
14	61167	3	N/A	N/A	3/8" x 2-5/8" O.D. x 12-1/2" Extension Spring - Model 760LD
	61099	N/A	4	4	3/8" x 2-5/16" O.D. x 14-1/2" Extension Spring - Models 760 & 800
15A	61098	2	N/A	N/A	Standard Plow Shoe Assembly - Model 760LD: (1) - 15, 16, 18, (18) - 17
	61220	N/A	2	2	Heavy-Duty Plow Shoe Assembly - Models 760 & 800: (1) - 15, 16, 18, (18) - 17
15	61104	2	N/A	N/A	Standard Plow Shoe (7-3/4" Shaft) - Model 760LD
	61221	N/A	2	2	Cast Iron Heavy-Duty Plow Shoe (8-3/8" Shaft) - Models 760 & 800
16	61102	2	2	2	1-5/8" O.D. 1-1/8" I.D. x 1-1/2" YZ Spacer
17	61101	36	36	36	1", 1-3/4" O.D., 1-1/16" I.D. Z Flat Washer
18	61103	2	2	2	1/2" x 1-3/4" Linch Pin
19	61046	2	2	2	1-1/4" O.D., 1-1/6" I.D. Standard Split Ring
20	61000	2	2	2	1/32" x 3/8" O.D. x 15/16" Stainless Steel Compression Spring
21	52044	1	1	1	1/2" x 1-3/4" Stainless Steel Kickstand Pin
22	40079	1	1	1	3/8" x 1-3/4" Stainless Steel A-frame Latch Pin
23	61216	1	1	1	9/16"-12 x 2-1/2" Grade 8 YZ Hex Cap Screw
24	52039	1	1	1	Kickstand Weldment
25	61058	1	1	1	9/16"-12 Grade C Z Top Lock Nut
26	61003	2	2	2	3/4"-10 x 3" Grade 8 YZ Hex Cap Screw
27	61006	7	8	8	3/4"-10 Grade C Z Top Lock Nut
28	61063	1	N/A	N/A	5/8"-11 Grade C Z Top Lock Nut - Model 760LD
29	83000	1	N/A	N/A	Pivot Beam Weldment - Model 760LD
	41030	N/A	1	1	Pivot Beam Weldment - Models 760 & 800
30	61002	N/A	4	4	3/4"-10 x 5" Grade 8 YZ Hex Cap Screw
	61200	4	N/A	N/A	3/4"-10 x 4" Grade 8 YZ Hex Cap Screw
31	61252	1	N/A	N/A	1"-8 x 8-1/2" Grade 8 YZ Hex Head Cap Screw - Model 760LD
	61131	N/A	1	1	1"-8 x 9" Grade 8 YZ Hex Head Cap Screw - Models 760 & 800
32	61008	1	1	1	1"-8 Grade C Z Top Lock Nut
33	60065	2	N/A	N/A	Hydraulic Cylinder - Plow Angle - Model 760LD
	60029	N/A	2	2	Hydraulic Cylinder - Plow Angle - Models 760 & 800
34	60005	3	3	3	9/16"-18 x 9/16"-18 90° Adjustable Elbow O.R.B. Adapter
35	60091	1	1	1	3/8" x 24" Hydraulic Hose (#1) - Plow Angle, Driver's Side
36	60011	1	1	1	3/8" x 24" Hydraulic Hose (#2) - Plow Angle, Passenger's Side
37	61253	1	N/A	N/A	5/8"-11 x 5-1/2" Grade 8 YZ Hex Cap Screw - Model 760LD
	61005	N/A	1	1	3/4"-10 x 6" Grade 8 YZ Hex Cap Screw - Models 760 & 800
38	60092	1	1	1	1/4" x 17" Hydraulic Hose - Str./45° (#3) - Plow Raise/Lower, Extend
39	60002	1	1	1	7/16"-20 x 7/16"-20 45° Adjustable Elbow O.R.B. Adapter
40	60066	1	N/A	N/A	Hydraulic Cylinder - Plow Raise/Lower - Model 760LD
	60027	N/A	1	1	Hydraulic Cylinder - Plow Raise/Lower - Models 760 & 800
41	60004	1	1	1	7/16"-20 x 7/16"-20 Male O.R.B. Connector Adapter
42	60093	1	1	1	1/4" x 15" Hydraulic Hose - Str./45° (#4) - Plow Raise/Lower, Retract
43	61203	1	N/A	N/A	1", 2" O.D., 1-1/16" I.D. YZ SAE Mil-Carb High-Strength Washer - Model 760LD
44	61053	1	1	1	3/16" x 1-11/16" O.D. x 12" Z Compression Spring
45	61211	1	N/A	N/A	1", 2-1/4" O.D., 1-1/16" I.D. Flat Washer - Model 760LD
46	61032	N/A	2	2	1-1/4", 2-1/2" O.D., 1-3/8" I.D. YZ SAE Mil-Carb High-Strength Washer - Models 760 & 800
47	61017	3	3	3	3/8"-16 Z Wing Nut
48	61012	1	1	1	3/8"-16 x 3/4" Grade 8 YZ Hex Cap Screw
49	61016	6	6	6	3/8", 13/16" O.D., 13/32" I.D., YZ SAE Mil-Carb High-Strength Washer
50	61014	1	1	1	3/8"-16 Z Jam Nylon Insert Lock Nut - Type NTE
51	61116	1	1	1	3/8"-16 x 1-1/2" Threaded Stud
52	40004	1	1	1	Pump Mount Hinge Weldment
53	61218	1	1	1	3/8"-16 x 2" Grade 8 YZ Hex Cap Screw
54	61034	1	1	1	3/8"-16 Grade C Z Top Lock Nut
55	61222	2	2	2	3/8" YZ High-Alloy Split Lock Washer
56	61033	2	2	2	3/8"-16 x 1" Grade 8 YZ Hex Cap Screw
57	62019	2	2	2	7/16"-14 Hex Jam Nut
58	61223	1	1	1	7/16" Internal Tooth Lock Washer
59	61224	1	1	1	7/16", 23/32" O.D., 15/32" I.D. Key Washer
60	62038	1	1	1	DPDT, (On)-Off-(On) Toggle Switch, 16 Amps, 115V AC - Draw Latch Connect/Disconnect

Note: The reference numbers listed identify parts shown in the illustrations on pages 21-24 & 32. These numbers are specific to these illustrations only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

MODELS 760LD, 760 & 800 PARTS LIST

Ref. No.	Part No.	Quantity			Part Description
		760LD	760	800	
61A	82034	1	N/A	N/A	A-frame Assembly - Model 760LD: (1) - 19, 20, 22, 52-54, 132, 82000
	40010	N/A	1	1	A-frame Assembly - Models 760 & 800: (1) - 19, 20, 22, 52-54, 132, 40000
61	82000	1	N/A	N/A	A-frame Weldment - Model 760LD
	40000	N/A	1	1	A-frame Weldment - Models 760 & 800
62	61115	2	2	2	3/4" x 4-3/4" YZ Hitch Pin
63	61105	2	2	2	9/64" DIA. x 2-11/16" Z Hair Pin Cotter
64	61197	1	1	1	1" x 5-3/4" YZ Emergency Hitch Pin
65	61226	1	1	1	11/64" DIA. x 3-3/4" Z Hair Pin Cotter
66A	82022	1	N/A	N/A	Draw Latch Assembly - Model 760LD: (1) - 27, 71-75, 77-79, 81, 82, (2) - 4, 66-70, 76, 80
	40083	N/A	1	1	Draw Latch Assembly - Models 760 & 800: (1) - 27, 71-75, 77, 81, 82, (2) - 4, 66-70, 76, 78, 80
66	61018	2	2	2	1/2"-13 x 2" Grade 8 YZ Hex Head Cap Screw
67	61045	2	2	2	1/8" X 1-1/4" O.D. X 6" Stainless Steel Extension Spring
68	61028	2	2	2	1/4" x 1-1/4" Spring Pin
69	40039	2	2	2	3/4" O.D., 17/32" I.D. x 1-3/16" Spacer
70	61027	2	2	2	1/2", 1-3/8" O.D., 9/16" I.D., YZ USS Mil-Carb High-Strength Washer
71	61200	1	N/A	N/A	3/4"-10 x 4" Grade 8 YZ Hex Head Cap Screw - Model 760LD
	61004	N/A	1	1	3/4"-10 x 4-1/2" Grade 8 YZ Hex Head Cap Screw - Models 760 & 800
72	82023	1	N/A	N/A	3/4" x 6-21/32" Draw Latch Spring Mount Pin - Model 760LD
	40041	N/A	1	1	3/4" x 7" Draw Latch Spring Mount Pin - Models 760 & 800
73	82035	1	N/A	N/A	Outer Draw Latch Plate Weldment - Driver's Side - Model 760LD
	40080	N/A	1	1	Outer Draw Latch Plate Weldment - Driver's Side - Models 760 & 800
74	61227	1	1	1	1/4"-20 x 1/2" Set Screw
75	82025	1	N/A	N/A	1" x 5-5/8" Draw Latch Bolt Mount Pin (1/2"-13 Tap In Each End) - Model 760LD
	40068	N/A	1	1	1" x 6" Draw Latch Bolt Mount Pin (1/2"-13 Tap In Each End) - Models 760 & 800
76	82014	2	N/A	N/A	Inner Draw Latch Plate - Model 760LD
	40074	N/A	2	2	Inner Draw Latch Plate - Models 760 & 800
77	82027	1	N/A	N/A	1" x 3-7/8" Draw Latch Mount Pin (To A-frame) - Model 760LD
	40070	N/A	1	1	1" x 4-1/2" Draw Latch Mount Pin (To A-frame) - Models 760 & 800
78	82024	1	N/A	N/A	1" x 3-7/8" Draw Latch Arm Pivot Pin - Model 760LD
	40042	N/A	2	2	3/4" x 2-1/2" Draw Latch Arm Pivot Pin/Hydraulic Cylinder Rod End Pin - Plow Raise/Lower - Models 760 & 800
79	82033	1	N/A	N/A	5/8" x 2-3/8" Draw Latch Arm/Hydraulic Cylinder Rod End Pin - Plow Raise/Lower - Model 760LD
80	82013	2	N/A	N/A	Draw Latch Arm - Model 760LD
	40031	N/A	2	2	Draw Latch Arm - Models 760 & 800
81	82037	1	N/A	N/A	Draw Latch Finger Weldment - Model 760LD
	40082	N/A	1	1	Draw Latch Finger Weldment - Models 760 & 800
82	82036	1	N/A	N/A	Outer Draw Latch Plate Weldment - Passenger's Side - Model 760LD
	40081	N/A	1	1	Outer Draw Latch Plate Weldment - Passenger's Side - Models 760 & 800
83A	60101	1	1	1	Hydraulic Pump Assembly (Fenner Fluid Power): (1) - 83-86
83	60047	1	1	1	Hydraulic Pump Power Unit (Fenner Fluid Power)
84	60044	1	1	1	Hydraulic Pump Pressure Relief Valve Hex Cap (Fenner Fluid Power)
85	60045	1	1	1	Hydraulic Pump Fluid Reservoir (Fenner Fluid Power)
86	60046	1	1	1	Hydraulic Pump Fluid Reservoir Cap (Fenner Fluid Power)
87A	61129	1	1	1	Hydraulic Pump & Manifold Cover Assembly: (1) - 87, 133
87	61114	1	1	1	3/16" Polyethylene Hydraulic Pump & Manifold Cover
88A	60081	1	1	1	Manifold Assembly: (1) - 34, 88-94, 96, 97A, (2) - 95, 99-102, (5) - 98
88	60038	2	2	2	3/32" C.S.W., 9/16" I.D., 3/4" O.D. Neoprene O-ring, 70 Durometer
89	60083	1	1	1	Clear Anodized Aluminum Manifold Block with Cross Port Relief
90	60003	1	1	1	7/16"-20 x 9/16"-18 Male O.R.B. Connector Adapter
91	60009	1	1	1	7/16"-20 90° Swivel Elbow Adapter
92	60073	1	1	1	7/16"-20 x 9/16"-18 90° Swivel Elbow
93	60069	1	1	1	9/16"-18 x 9/16"-18 Male O.R.B. Check Valve with 3/64" DIA. Orifice
94	60072	1	1	1	9/16"-18 x 9/16"-18 Male Extra Long Elbow
N/A*	60006	N/A	2	2	9/16"-18 90° Swivel Elbow Adapter
N/A**	60007	N/A	1	1	9/16"-18 x 9/16"-18 Male O.R.B. Connector Adapter
N/A†	60067	N/A	1	1	9/16"-18 x 7/16"-20 Tube Reducer
N/A††	60068	N/A	1	1	9/16"-18 Swivel Nut
95	60050	2	2	2	-6 SAE Hollow Hex Plug
96	60051	1	1	1	Three Position, Four-Way N.C. Solenoid Cartridge (DSO85C1)
97A	62043	1	1	1	Heavy-Duty Coil Wire Lead Harness Assembly: (1) - 62045, 62046, (6) - 97
97	60037	6	6	6	12V DC Heavy Duty Coil with Wire Leads
N/A	62045	2	2	2	Plastic Electric Connector - Male
N/A	62046	2	2	2	Plastic Electric Connector - Female
98	60052	2	2	2	1/2"-20 YZ Hex Jam Nut
99	60056	2	2	2	Pressure Relief Valve, 3000 psi (RD083C30/300)
100	60054	2	2	2	3/8"-24 YZ Crown Nut
101	60057	2	2	2	Two Position, Two-Way N.C. Solenoid Cartridge (DSO83H)
102	60058	2	2	2	Two Position, Two-Way N.C. Solenoid Cartridge (DSO81CR)
103	61011	4	4	4	5/16" YZ High Alloy Split Lock Washer
104	61009	1	1	1	5/16"-18 x 3-1/2" Grade 8 YZ Hex Cap Screw
105	61010	1	1	1	5/16"-18 x 3-3/4" Grade 8 YZ Hex Cap Screw

Note: The reference numbers listed identify parts shown in the illustrations on pages 21-24 & 32. These numbers are specific to these illustrations only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

*9/16"-18 90° Swivel Elbow Adapter (P/N 60006) - 2 total quantity, replaces items #92 & #94 in early season delivered model 760 and 800 snowplows.

**9/16"-18 x 9/16"-18 Male Connector Adapter (P/N 60007) - 1 total quantity, replaces item #94 in early season delivered model 760 and 800 snowplows.

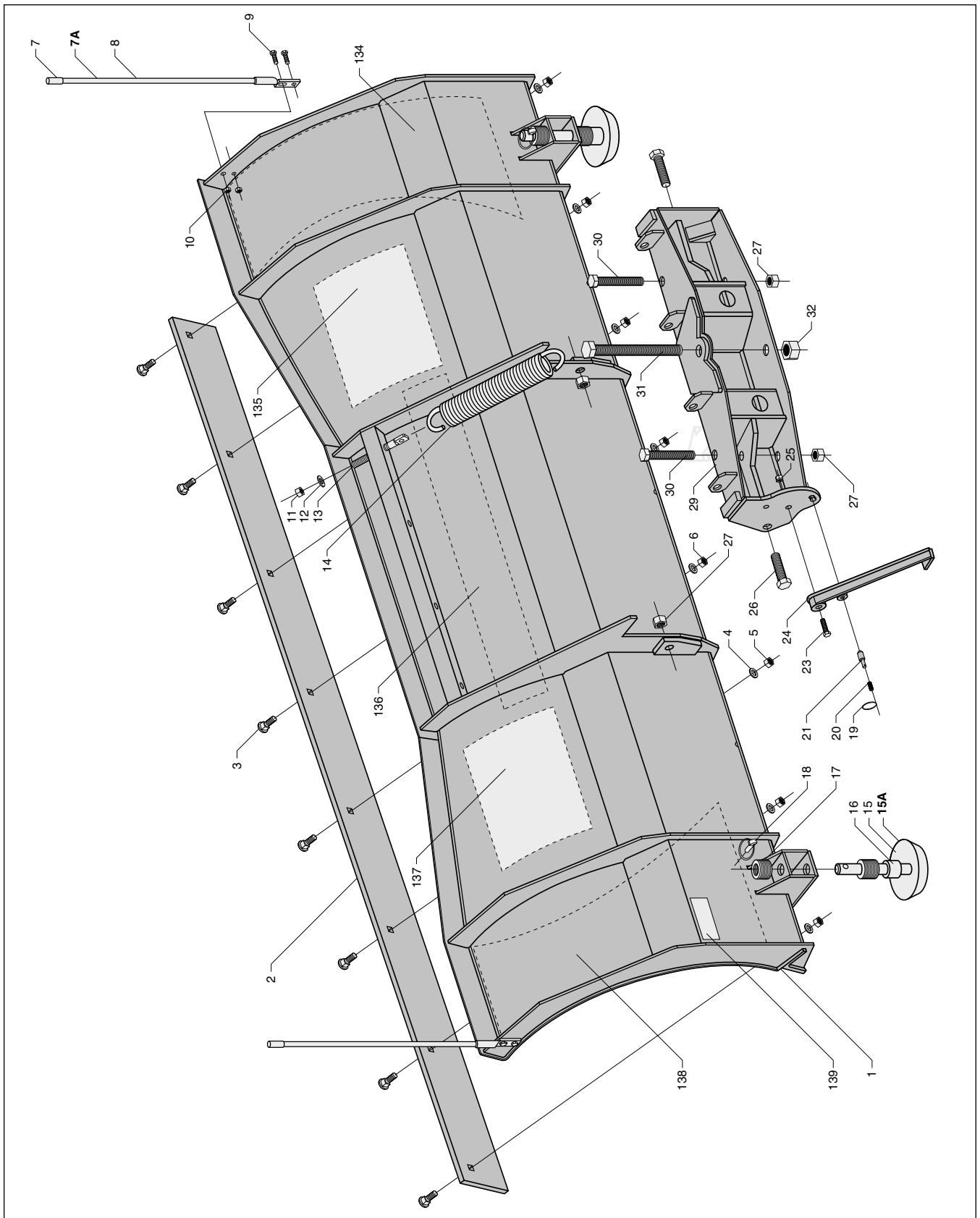
†9/16"-18 x 7/16"-20 Tube Reducer (P/N 60067) replaces item #92 in early season model 760 and 800 delivered snowplows.

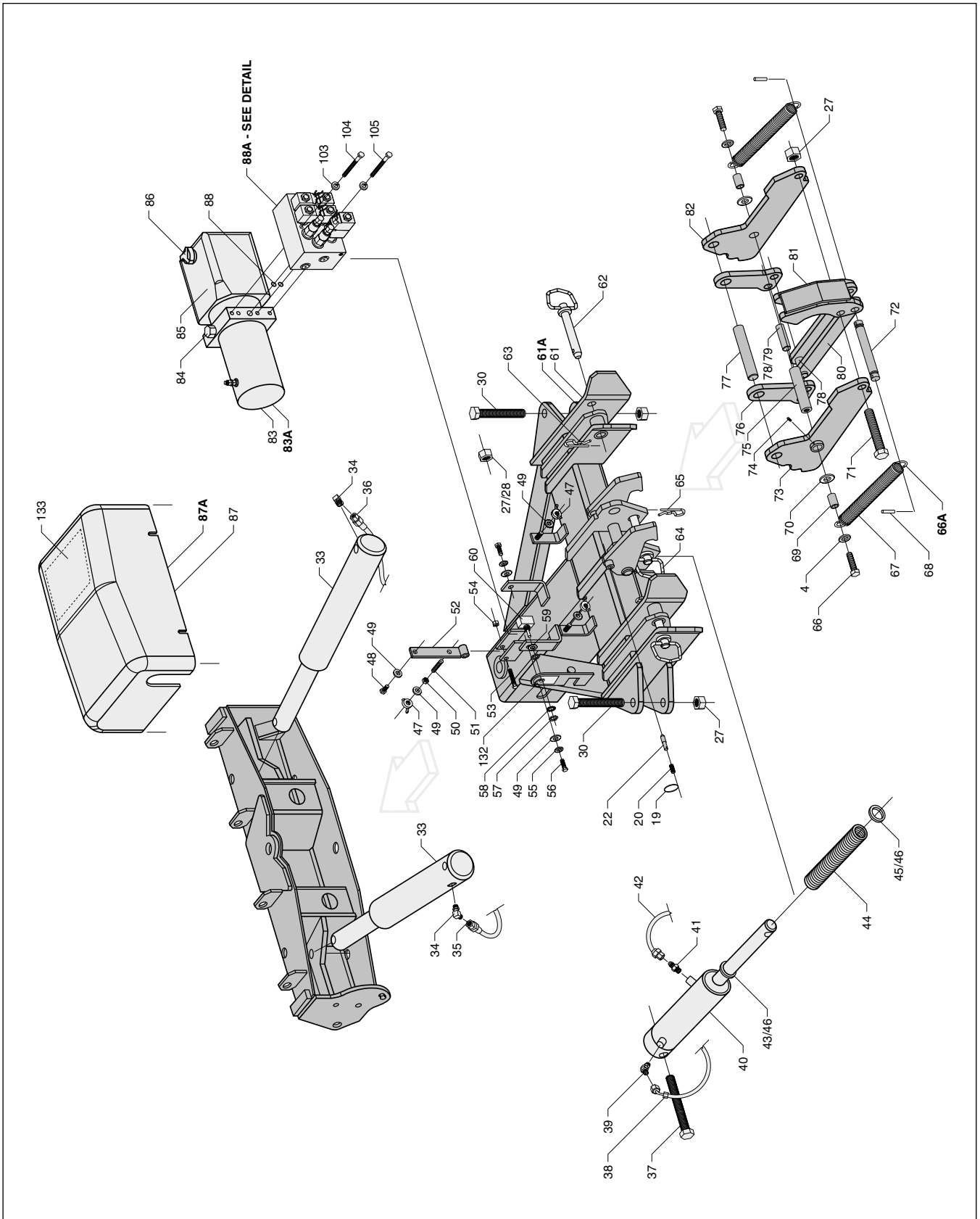
††9/16"-18 Swivel Nut (P/N 60068) replaces item #92 in early season model 760 and 800 delivered snowplows.

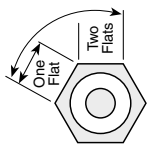
MODELS 760LD, 760 & 800 PARTS LIST

Ref. No.	Part No.	Quantity			Part Description
		760LD	760	800	
106A	62040	1	1	1	Vehicle Wire Harness Assembly: (1) - 106, 107, 62008, 62009, 62024, 62048, 62049, (2) - 62035, 62072, (3) - 62016
106	62047	1	1	1	Vehicle Wire Harness
107	62000	1	1	1	Rubber Weather Cap - Vehicle Wire Harness
N/A	62035	2	2	2	Rubber Weather Cap - Plow Headlight Connector
N/A	62024	1	1	1	DPDT, On-Off-On Toggle Switch, 15A, 125V AC (Vehicle/Plow Headlights)
N/A	62048	1	1	1	1/4" DIA. x 1-1/4" AGC 10A, 250V Fuse
N/A	62049	1	1	1	72" Power Cable, Red - Power Contactor to Battery
N/A	62072	2	2	2	3/8" I.D. Copper End Ring Terminals - 72" Power Cable
N/A	62008	1	1	1	Mini Fuse Clip
N/A	62009	1	1	1	Auto Blade Fuse Clip
N/A	62016	3	3	3	Splice Lock Connector (18-14 AWG)
N/A	62042	1	1	1	Heavy Duty, Water-Resistant DC Power Contactor
N/A	61228	4	4	4	5/16"-24 Z Hex Jam Nut
N/A	61229	4	4	4	#10 -32 Z Hex Full Nut
N/A	61230	2	2	2	#10 Z Medium Split Lock Washer
N/A	62056	1	1	1	24" Power Contactor Ground Wire
N/A	61225	2	2	2	#10 x 1/2" Hex Washer Self-Drilling Screw
108A	62039	1	1	1	Plow Wire Harness Assembly: (1) - 58-60, 108, 109, 62037, 62006, 62007, (2) - 57
108	62057	1	1	1	Plow Wire Harness
109	62001	1	1	1	Rubber Weather Cap - Plow Wire Harness
N/A	62037	1	1	1	Ground Wire Harness
N/A	62006	1	1	1	Diode Board - Plow Wire Harness
N/A	62007	1	1	1	Diode Board Cover - Plow Wire Harness
110A	62058	1	1	1	Plow Headlight Assembly: (1) - 110/111, 112-115, 62061, 62062
110	62059	1	1	1	Plow Headlight - Driver's Side
111	62060	1	1	1	Plow Headlight - Passenger's Side
112	62032	2	2	2	Plow Headlight Wire Harness with 5-pin Plug
N/A	62061	2	2	2	Plow Headlight Glass Sealed Beam Halogen Bulb (H6545/H4666)
113	61231	2	2	2	Headlight Ball Stud Mount Adapter
114	61232	2	2	2	1/2" Heavy Split Lock Washer
N/A	62062	1	1	1	NYK Corrosion Preventive Compound (2 fl. oz.)
115	61025	2	2	2	1/2"-13 Grade 8 YZ Hex Nut
116	61166	2	2	2	2-1/4" Molded Nylon Dome Plug, Black
117	39034	1	N/A	N/A	Light Tower, Round Mounting Tube - Model 760LD
	39032	N/A	1	1	Light Tower, Round Mounting Tube - Models 760 & 800
118	61038	2	2	2	1/4"-20 Grade C Z Top Lock Nut
119	61039	2	2	2	1/4", 5/8" O.D., 9/32" I.D. YZ SAE Mil-Carb High-Strength Washer
120	39023	1	1	1	Stainless Steel Vehicle Wire Harness Plug Mount
121	61037	2	2	2	1/4"-20 x 3/4" Grade 8 YZ Hex Cap Screw
122A	62073	1	1	1	Joystick Control Station Assembly: (1) - 122, 123, 124, 129, (4) - 125
122	62074	1	1	1	Joystick Control Station
123	61185	1	1	1	1/8" ABS Plastic Joystick Control Station Base Plate
124	61127	1	1	1	61" Velcro Strap with 2" Metal D-Ring, Black
125	61254	4	4	4	8-32 x 3/4" Pan Head Machine Screw Z
126A	61043	1	1	1	Vehicle/Plow Headlight Toggle Switch Bracket Assembly: (1) - 126 & 128
126	61041	1	1	1	Vehicle/Plow Headlight Toggle Switch Bracket
127	61031	4	4	4	12-14 x 3/4" Hex Washer Self-Drilling Screw
128	61088	1	1	1	Plow/Vehicle Headlight Toggle Switch Bracket Label
129	61174	1	1	1	Joystick Control Station Label
130	61085	N/A	1	1	2-1/8" x 13-1/8" Push Beam Decal
131	61128	1	N/A	N/A	1-1/2" x 9" Push Beam Decal
132	61089	1	1	1	Power Hitch Connect/Disconnect Switch Label
133	61182	1	1	1	Sequencing Valve & Hydraulic Hose Identification Guide Label
134	61177	1	1	N/A	Passenger's Side Moldboard Decal - Models 760LD & 760
	61179	N/A	N/A	1	Passenger's Side Moldboard Decal - Model 800
135	61181	1	1	1	WARNING! Label
136	61175	1	1	1	Center Moldboard Decal
137	61180	1	1	1	Power Hitch Mounting & Dismounting Instructions Label
138	61176	1	1	N/A	Driver's Side Moldboard Decal - Models 760LD & 760
	61178	N/A	N/A	1	Driver's Side Moldboard Decal - Model 800
139	61199	1	N/A	N/A	Serial Number Label (Sequentially Numbered) - Model 760LD
	61183	N/A	1	N/A	Serial Number Label (Sequentially Numbered) - Model 760
	61184	N/A	N/A	1	Serial Number Label (Sequentially Numbered) - Model 800
140	61057	2	2	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
141	30037	N/A	1	1	1999-Present Chevrolet/GMC 2500 Series Undercarriage (37" Push Beam)

Note: The reference numbers listed identify parts shown in the illustrations on pages 21-24 & 32. These numbers are specific to these illustrations only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.







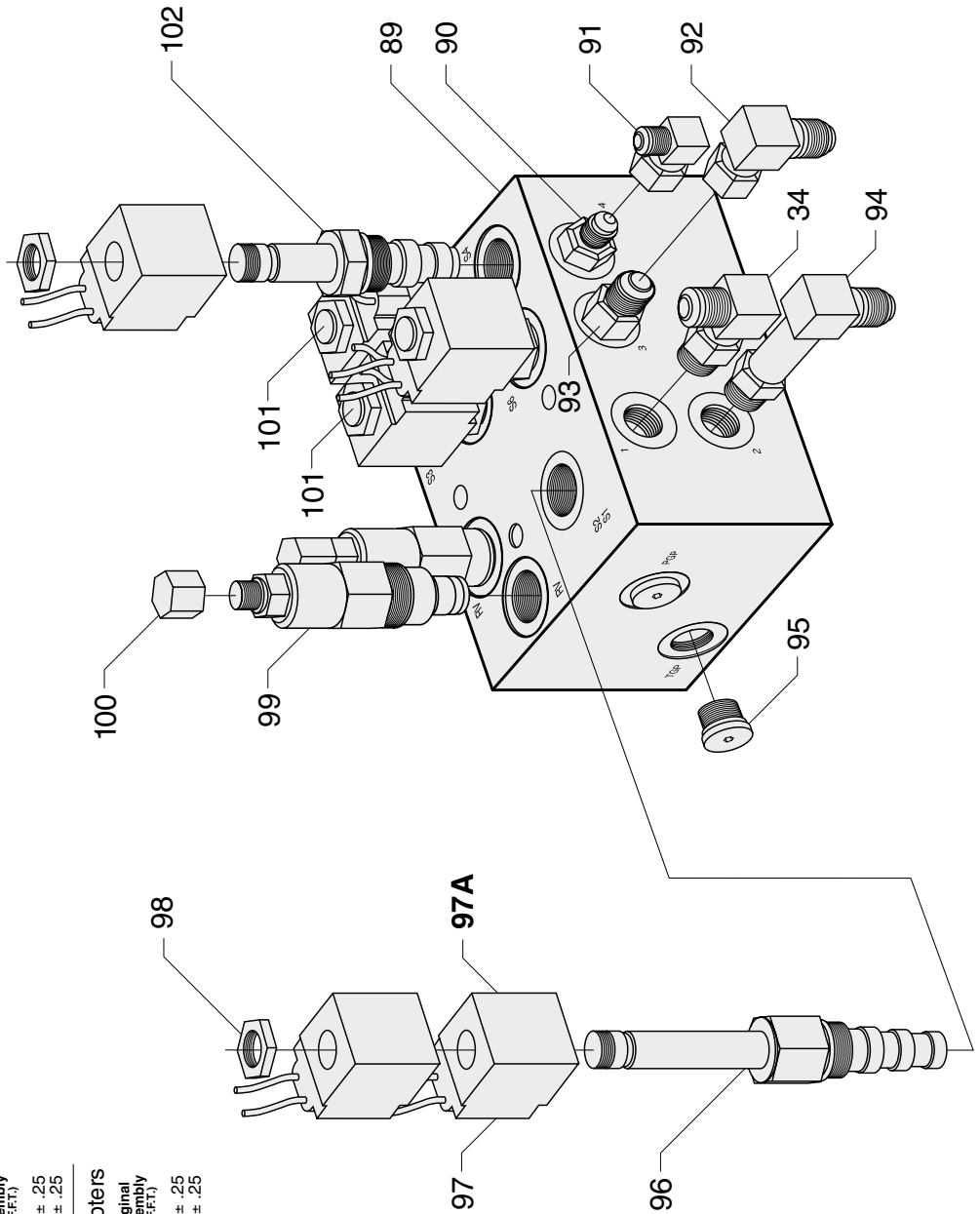
Torque Table for 37° Adapters

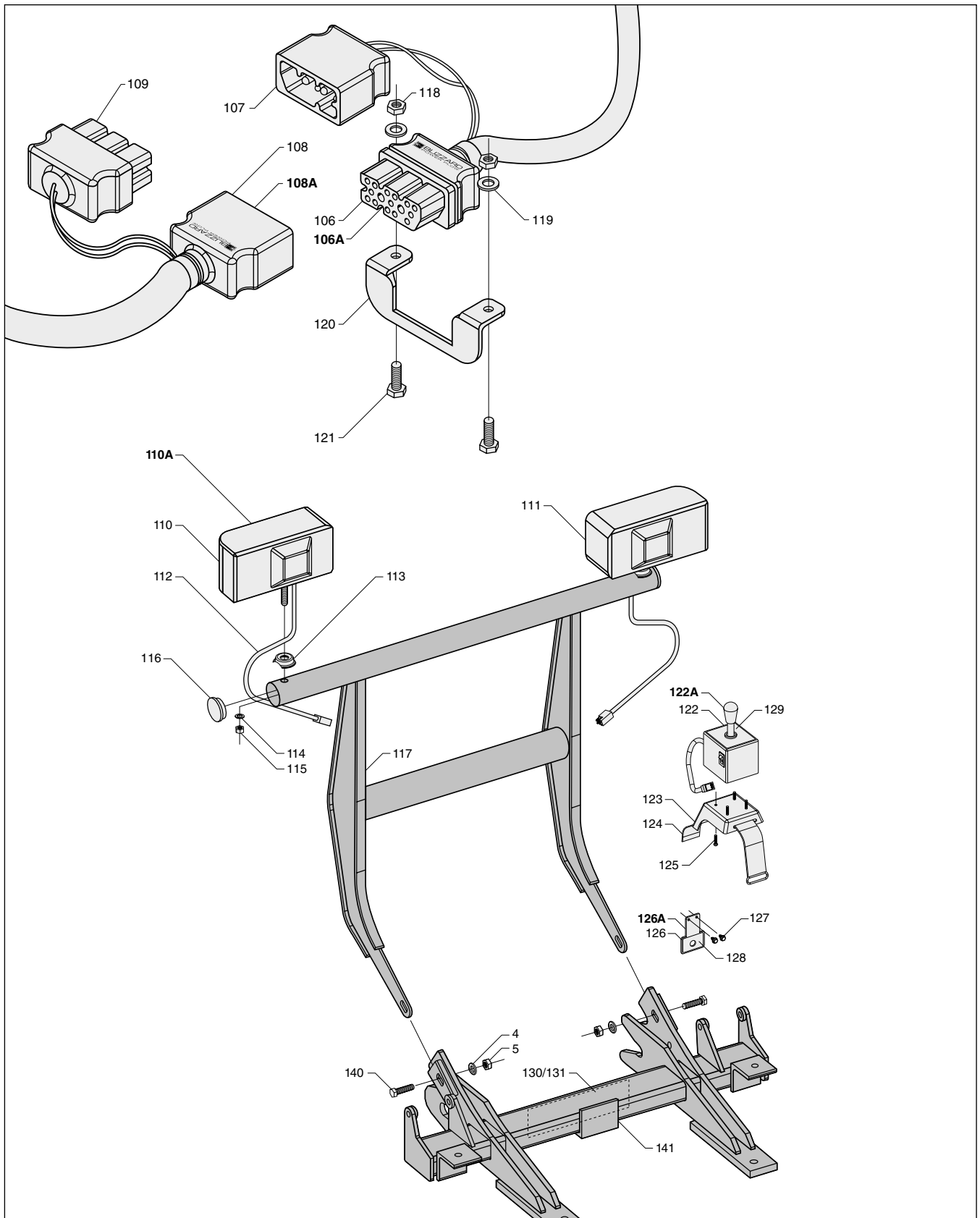
Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly (F.F.F.T.)
7/16-20	15 ± 1.0	2.5 ± .25
9/16-18	18 ± 2.0	2.5 ± .25

Torque Table for O.R.B. Adapters

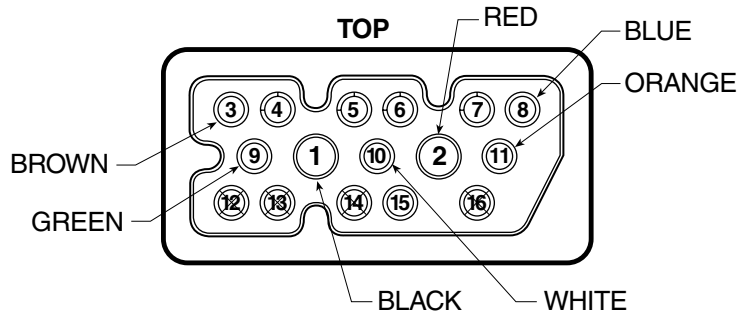
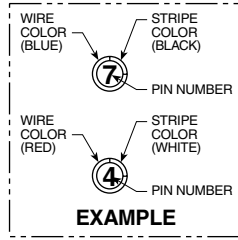
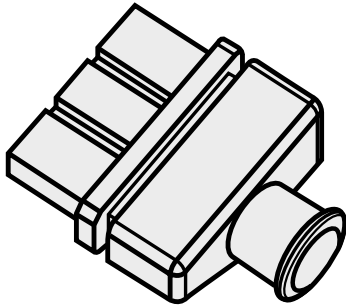
Port Thread Size	Assembly Torque (foot-pounds)	Original Assembly (F.F.F.T.)
7/16-20	15 ± 1.0	1.5 ± .25
9/16-18	25 ± 2.0	1.5 ± .25

F.F.F.T. = Flats From Finger Tight



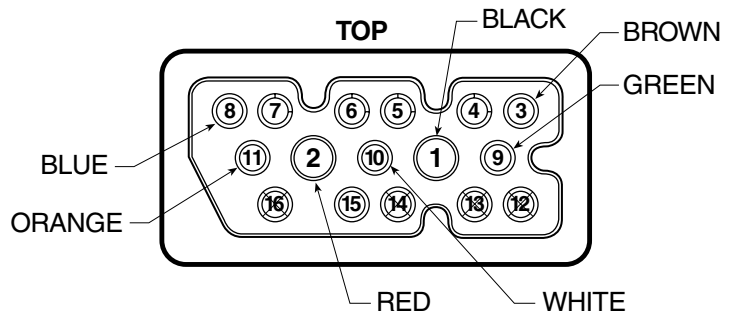
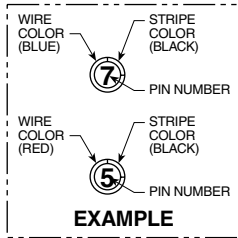
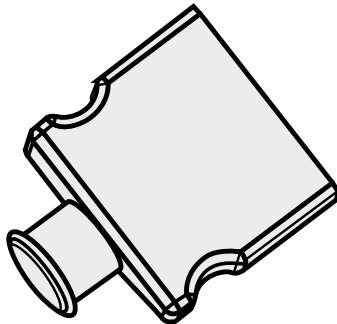


BLIZZARD HARNESS PLUG (VEHICLE) UNIVERSAL 14 + 2 MOLD			
PIN NO.	COLOR	FUNCTION	AWG
1	BLACK	GROUND	4
2	RED	12 VOLT DC (+)	4
3	(1) BROWN	PUMP SOLENOID RING	18
	(2) BROWN	PUMP WIRE TO MOLEX	18
4	RED/WHITE	PASS. SLIDE BOX EXTEND	18
5	RED/BLACK	PASS. SLIDE BOX RETRACT	18
6	BLUE/WHITE	DRIVE. SLIDE BOX EXTEND	18
7	BLUE/BLACK	DRIVE. SLIDE BOX RETRACT	18
8	BLUE	LEFT ANGLE	18
9	GREEN	RIGHT ANGLE	18
10	WHITE	LIFT	18
11	ORANGE	FLOAT	18
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	PINK/BLACK	12 (+) VDC FUSED	18
16	N/A	N/A	18

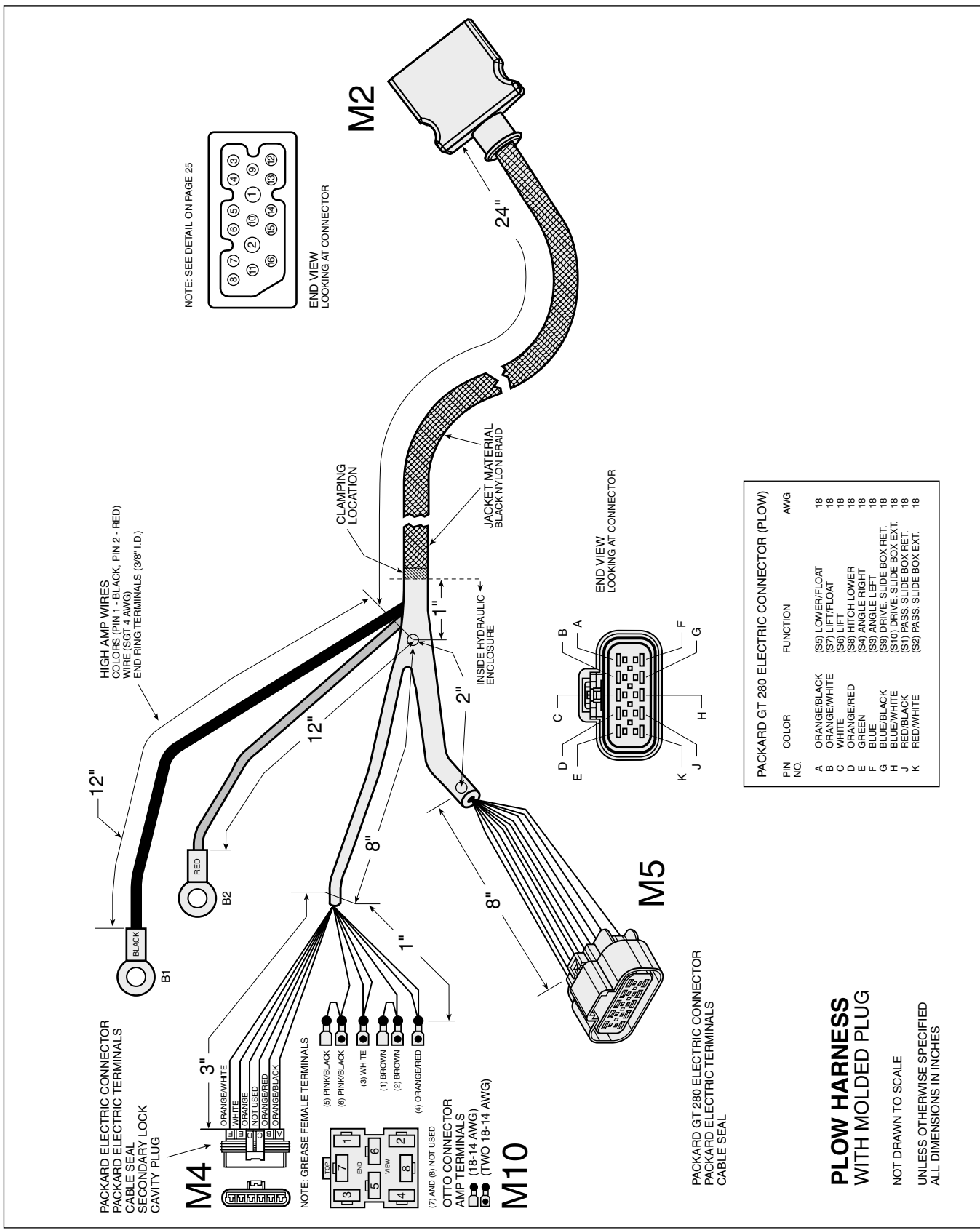


END VIEW
LOOKING AT MALE CONNECTOR

BLIZZARD HARNESS PLUG (PLOW) UNIVERSAL 14 + 2 MOLD			
PIN NO.	COLOR	FUNCTION	AWG
1	BLACK	GROUND	4
2	RED	12 VOLT DC (+)	4
3	BROWN	PUMP SOLENOID	18
4	RED/WHITE	PASS. SLIDE BOX EXTEND	18
5	RED/BLACK	PASS. SLIDE BOX RETRACT	18
6	BLUE/WHITE	DRIVE. SLIDE BOX EXTEND	18
7	BLUE/BLACK	DRIVE. SLIDE BOX RETRACT	18
8	BLUE	LEFT ANGLE	18
9	GREEN	RIGHT ANGLE	18
10	WHITE	LIFT	18
11	ORANGE	FLOAT	18
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A
15	PINK/BLACK	12 (+) VDC FUSED	18
16	N/A	N/A	18



END VIEW
LOOKING AT FEMALE CONNECTOR



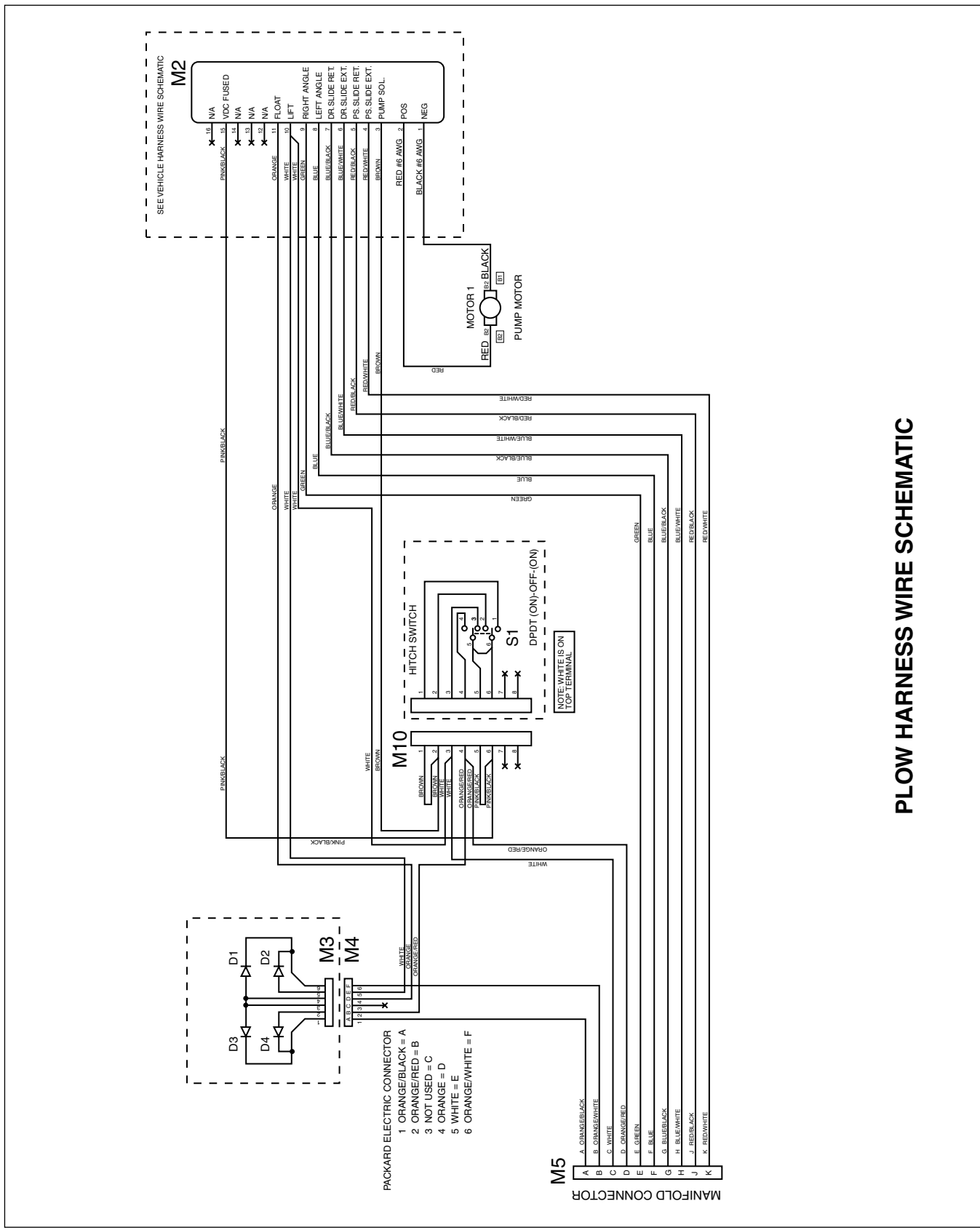
PACKARD GT 280 ELECTRIC CONNECTOR (PLOW)

PIN NO.	COLOR	FUNCTION	AWG
A	ORANGE/BLACK	(S5) LOWER/FLOAT	18
B	ORANGE/WHITE	(S7) LEFT/FLOAT	18
C	WHITE	(S6) LEFT	18
D	ORANGE/RED	(S8) HITCH LOWER	18
E	GREEN	(S4) ANGLE RIGHT	18
F	BLUE	(S3) ANGLE LEFT	18
G	BLUE/BLACK	(S9) DRIVE SLIDE BOX RET.	18
H	BLUE/WHITE	(S10) DRIVE SLIDE BOX EXT.	18
J	RED/BLACK	(S1) PASS SLIDE BOX RET.	18
K	RED/WHITE	(S2) PASS SLIDE BOX EXT.	18

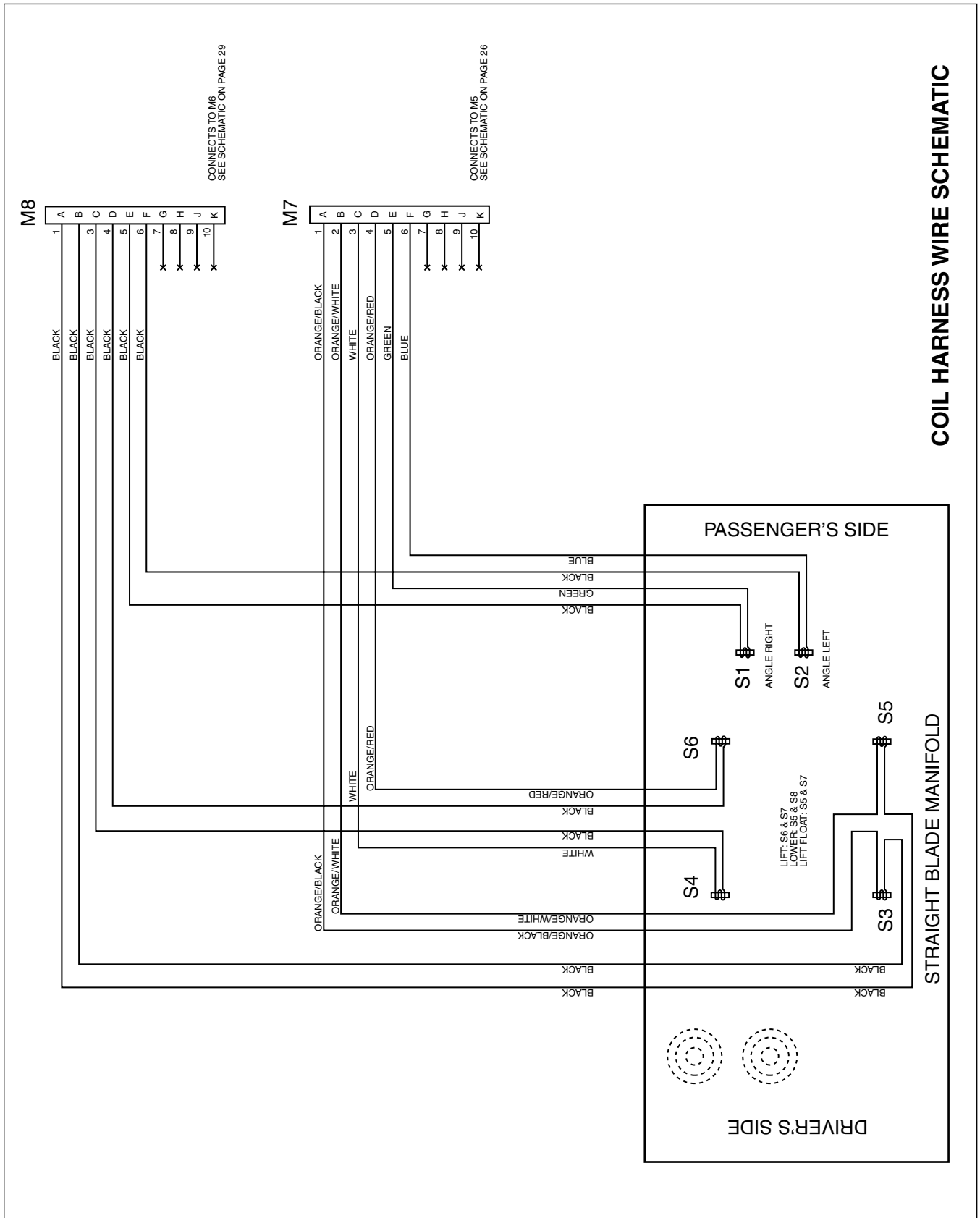
**PLOW HARNESS
WITH MOLDED PLUG**

NOT DRAWN TO SCALE
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS IN INCHES

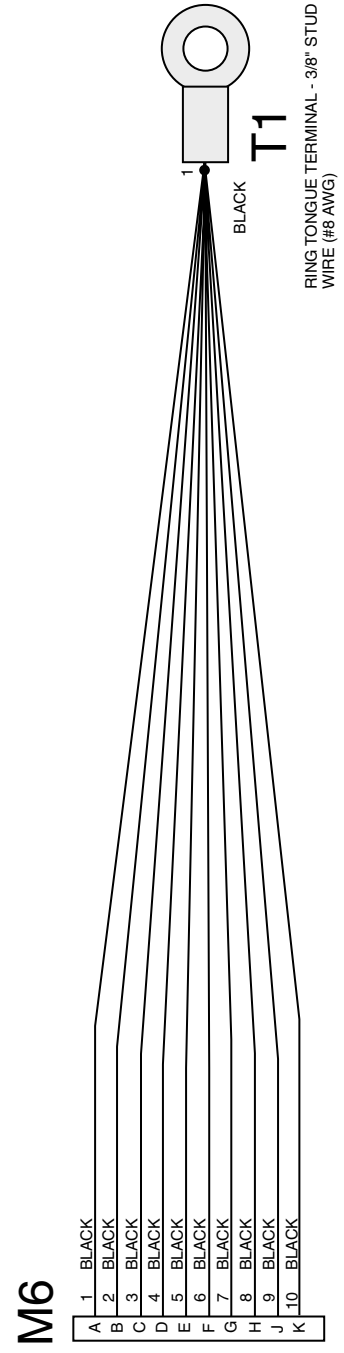
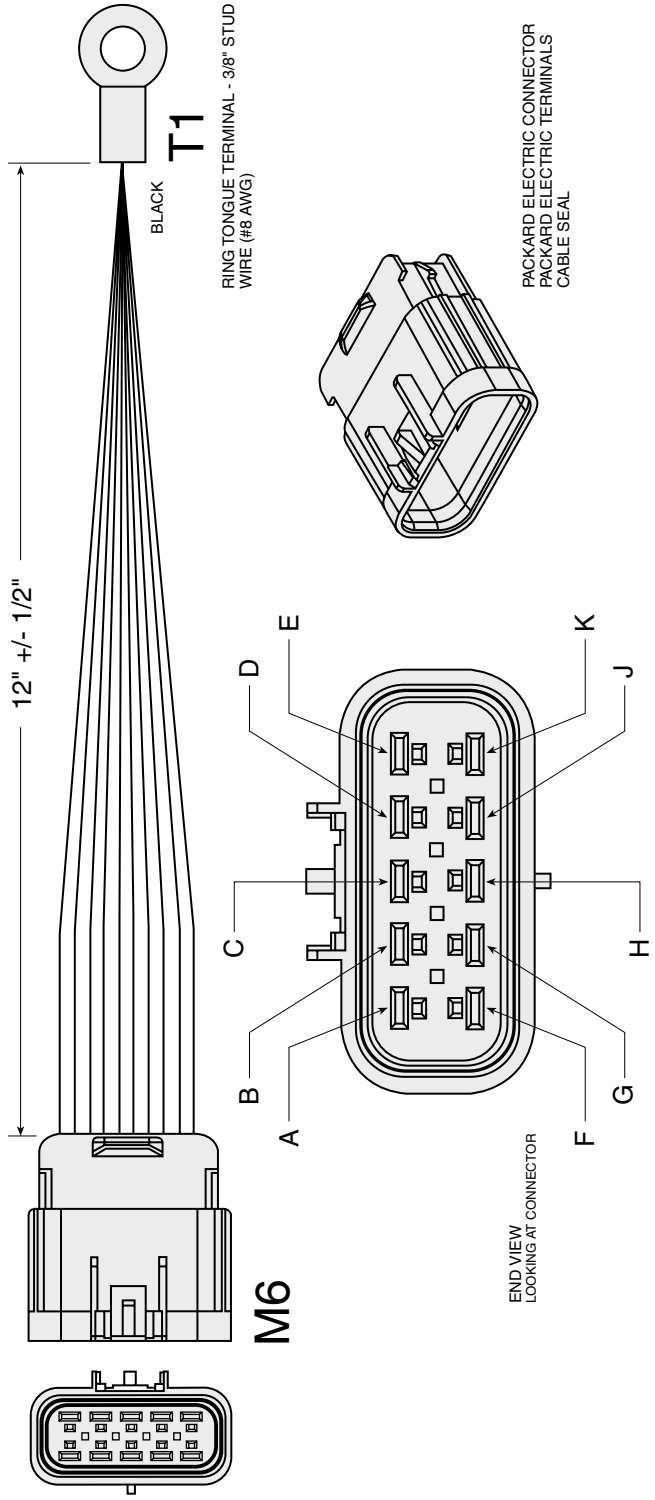
PACKARD GT 280 ELECTRIC CONNECTOR
PACKARD ELECTRIC TERMINALS
CABLE SEAL



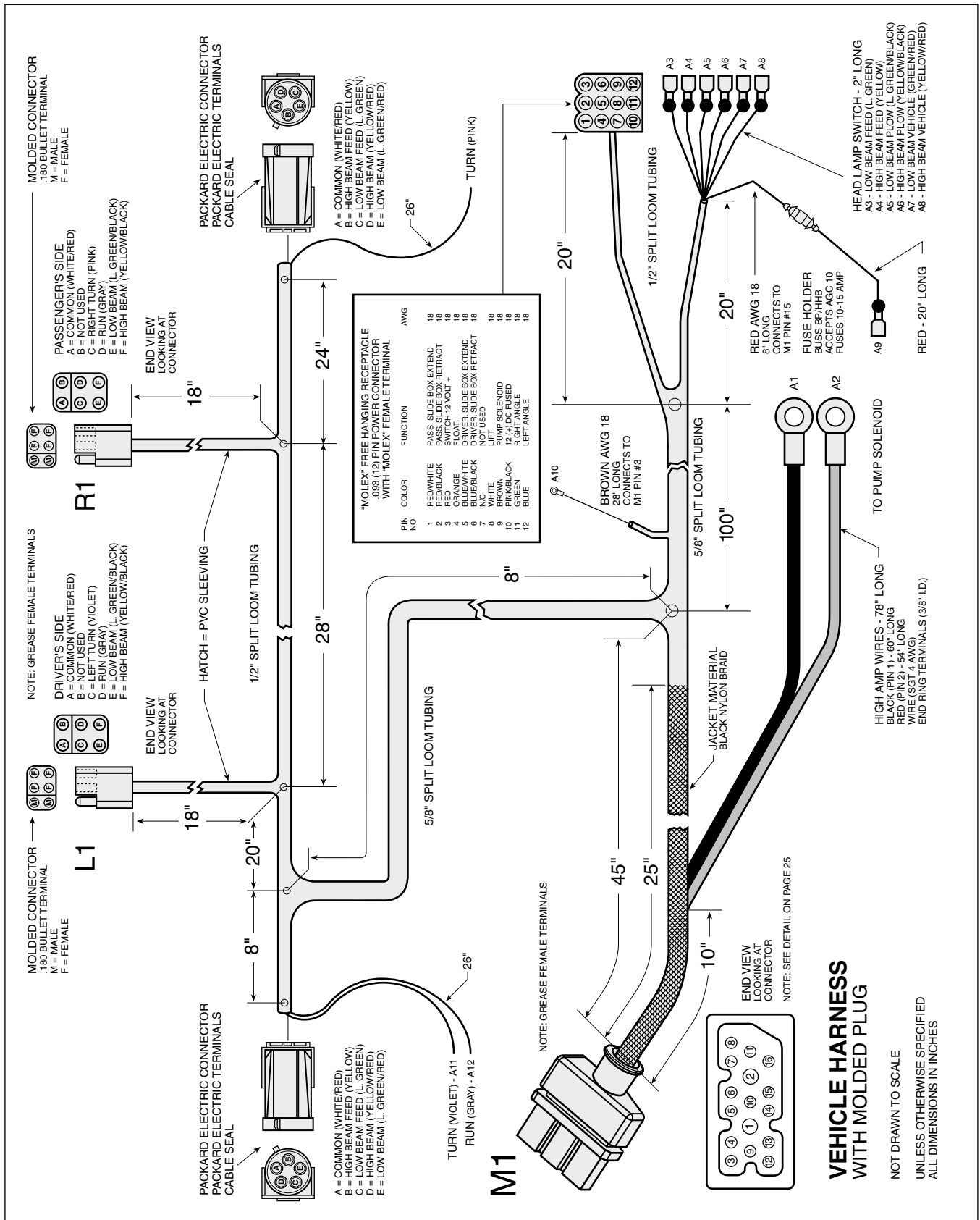
PLOW HARNESS WIRE SCHEMATIC

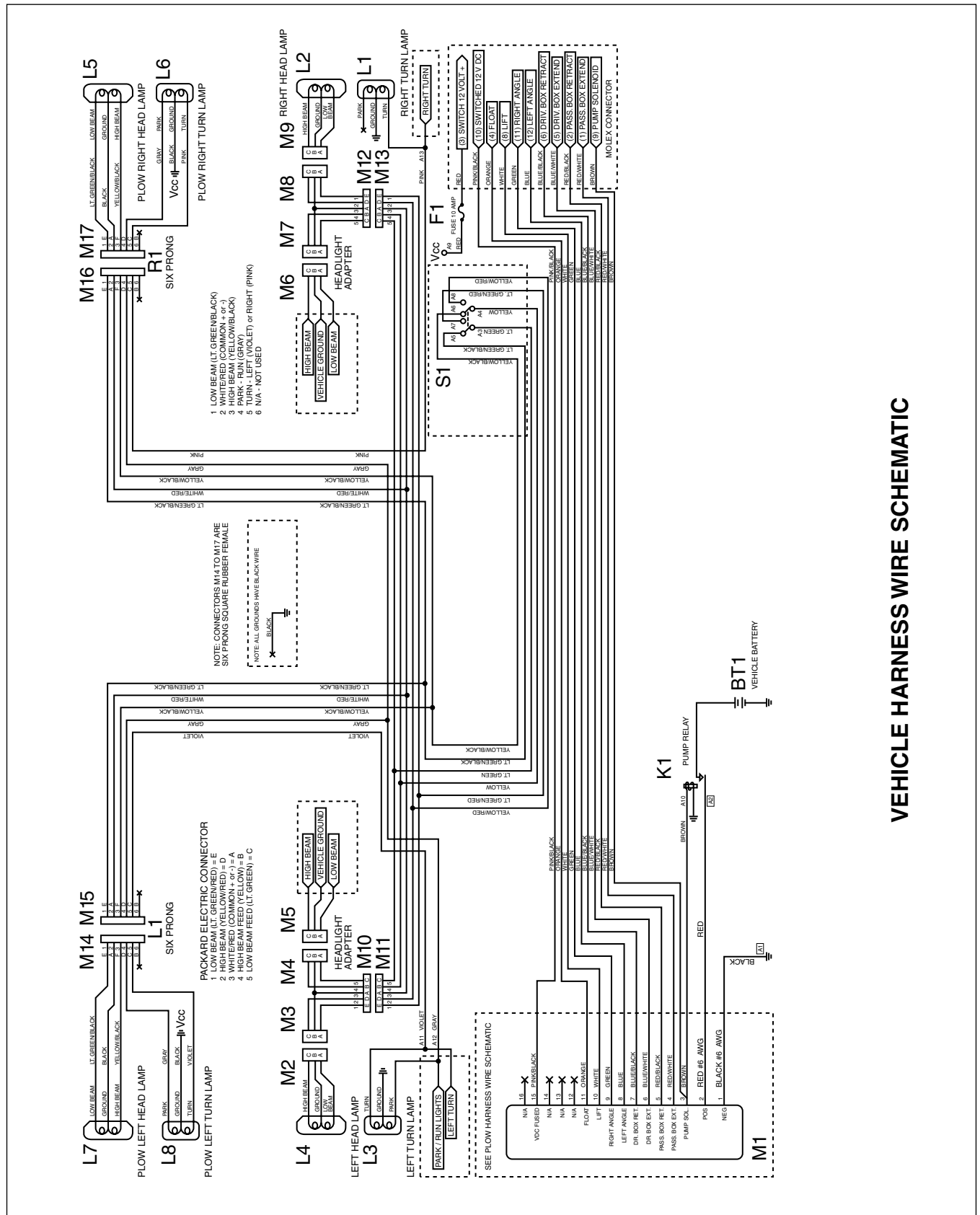


COIL HARNESS WIRE SCHEMATIC

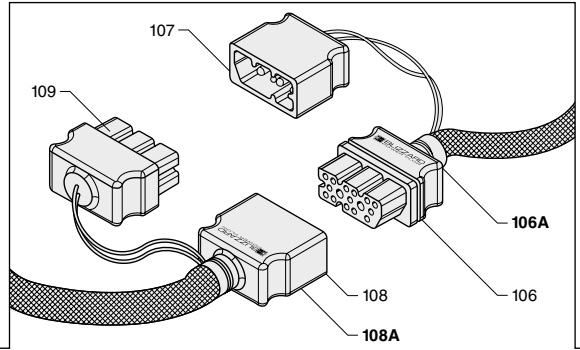
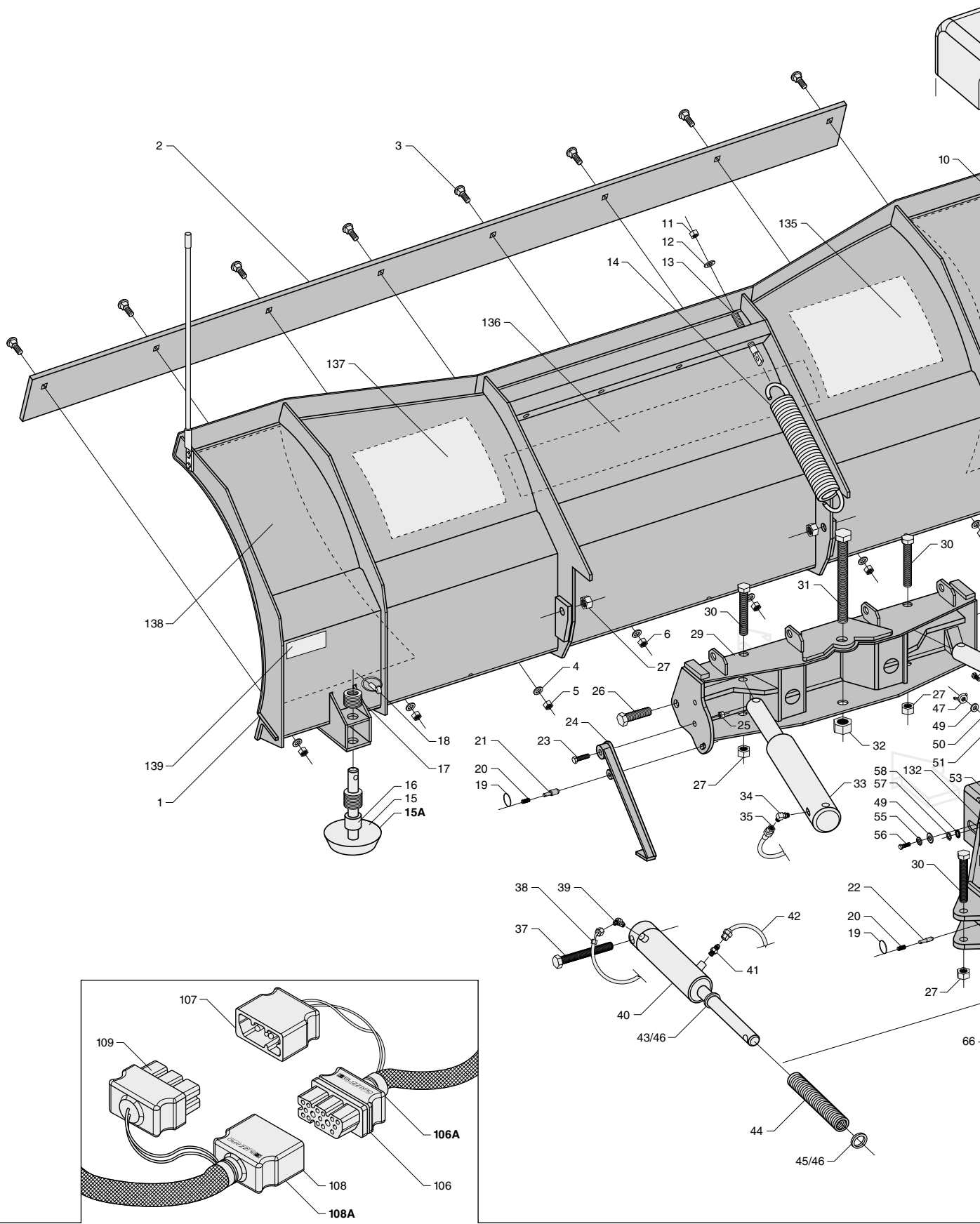


SOLENOID GROUND HARNESS SCHEMATIC





VEHICLE HARNESS WIRE SCHEMATIC



760/800

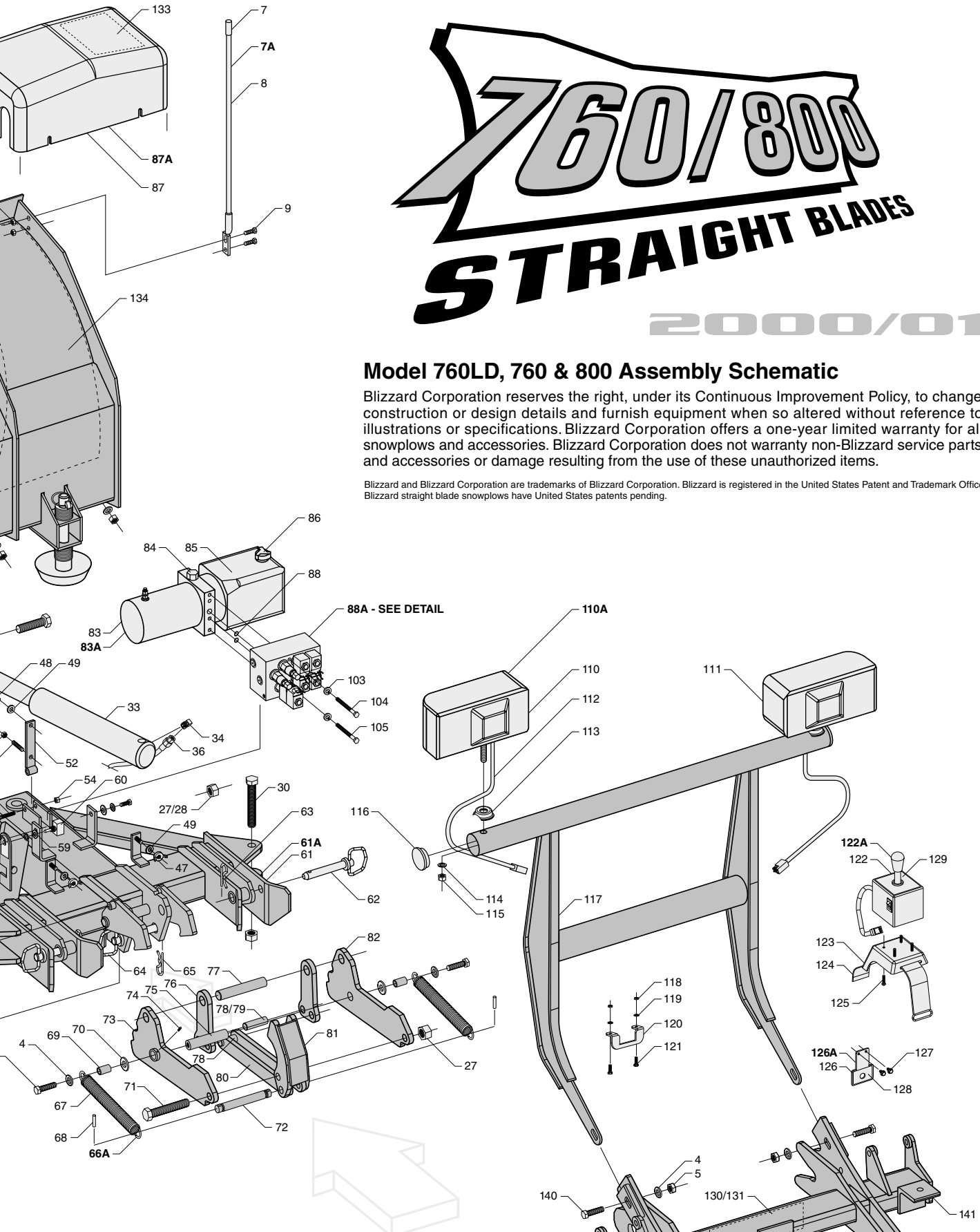
STRAIGHT BLADES

2000/01

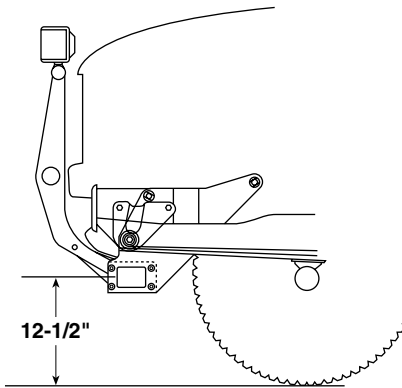
Model 760LD, 760 & 800 Assembly Schematic

Blizzard Corporation reserves the right, under its Continuous Improvement Policy, to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications. Blizzard Corporation offers a one-year limited warranty for all snowplows and accessories. Blizzard Corporation does not warranty non-Blizzard service parts and accessories or damage resulting from the use of these unauthorized items.

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1988-1991 FORD F-150 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

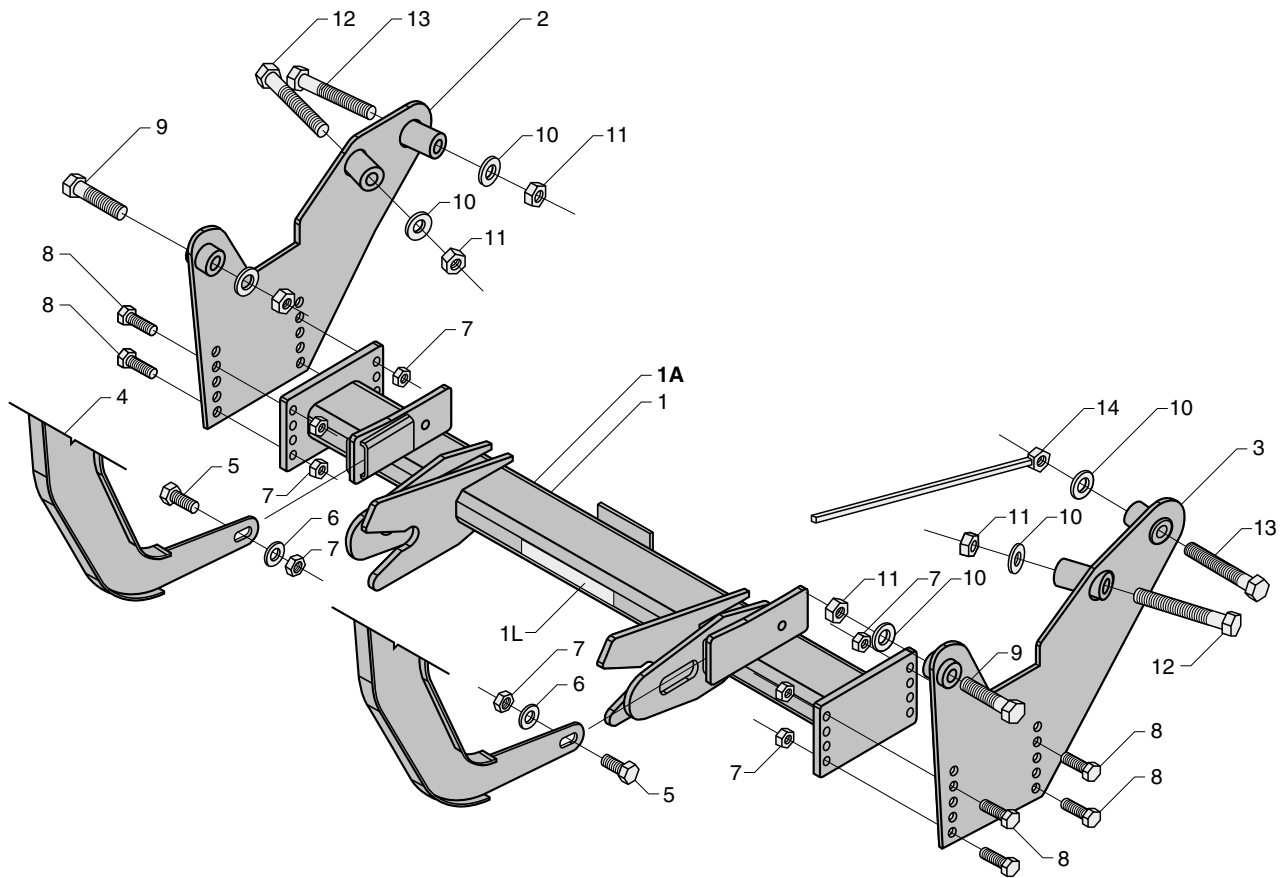


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the undercarriage assembly by removing the front bumper on the vehicle. There are two mounting plates with four M12-1.75 x 45 flanged hex head screws and M12-1.75 nuts to be removed. These are located on the inside of the truck frame rail.
2. Match the holes in each of the HANGER PLATES to those located on the outside of the truck frame rail. Insert one 5/8"-11 x 4" bolt through the rear hole in the hanger plate and truck frame rail. Position one 5/8"-11 top locking nut with 14" welded stock and washer inside of the truck frame rail on the driver's side and fasten. *Note: The passenger's side receives a 5/8"-11 top lock nut and washer. No welded stock is necessary since the bolt is easily accessible. Loosely attach all nuts until all undercarriage plates are positioned.*
3. Align the front mounting hole on the plate with the hole in the truck frame. Fasten the plate to the vehicle with one 5/8"-11 x 2-3/4" bolt, washer and top lock nut.
4. Complete the hanger plate installation by positioning one 5/8"-11 x 4-1/2" bolt through the middle mounting hole in the plate. Secure the screw with one 5/8" top lock nut and washer.
5. Repeat steps #2 through #4 for the opposite hanger plate. *Note: If your vehicle is equipped with oversize tires, the steering stop may need to be adjusted to prevent the tires from hitting the hanger plates.*
6. Mount the PUSH BEAM to the hanger plates using eight 1/2"-13 x 1-1/2" bolts and 1/2"-13 top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Replace the bumper using the existing hardware.
9. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

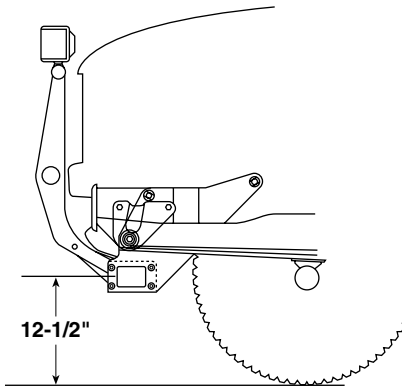


1988-1991 FORD F-150 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31074	1	1988-1991 Ford F-150 Series Undercarriage Assembly (Nos. 1 - 14)
1	31075	1	41-5/8" Push Beam (1988-91 Ford F-150)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	31079	1	Passenger's Side Hanger Plate (1988-91 Ford F-150)
3	31080	1	Driver's Side Hanger Plate (1988-91 Ford F-150)
4	39034	1	Light Tower, Round Mounting Tube - Model 760LD
5	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
6	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	10	1/2"-13 Grade C Z Top Lock Nut
8	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
9	61061	2	5/8"-11 x 2-3/4" Grade 8 YZ Hex Head Cap Screw
10	61064	6	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
11	61063	5	5/8"-11 Grade C Z Top Lock Nut
12	61065	2	5/8"-11 x 4-1/2" Grade 8 YZ Hex Head Cap Screw
13	61155	2	5/8"-11 x 4" Grade 8 YZ Hex Head Cap Screw
14	61161	1	5/8"-11 Grade C Z Top Lock Nut with Welded 14" Square Stock
N/A	61159	1	1988-1991 Ford F-150 Series Undercarriage Hardware Kit - Kit Includes: Nos. 5 - 14

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.

1987-1991 FORD F-250 & F-350 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

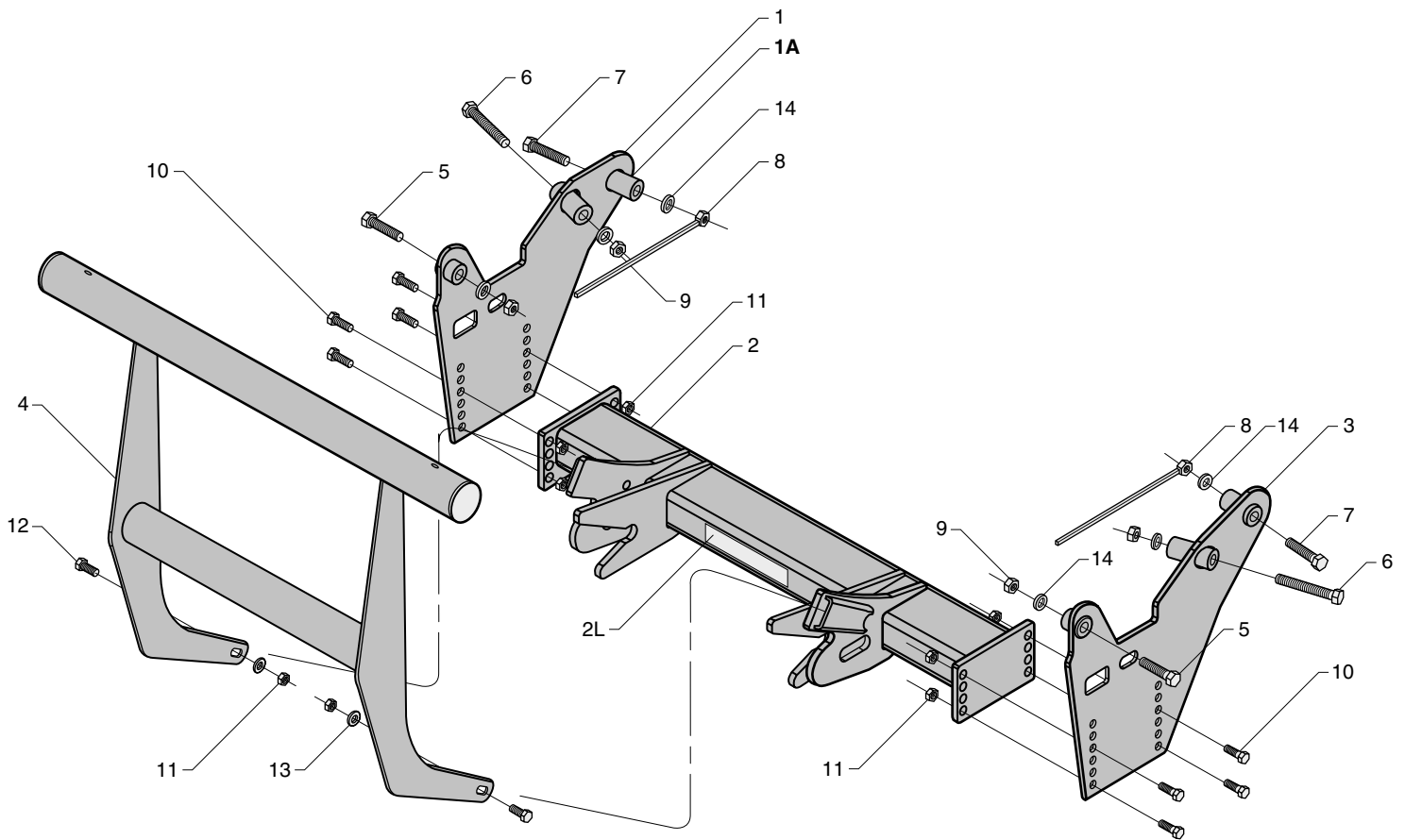


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the undercarriage assembly by removing the front bumper of the vehicle. There are two mounting plates with four M12-1.75 x 45 flanged hex head screws and M12-1.75 nuts to be removed. These are located on the inside of the truck frame rail.
2. Match the holes in each of the HANGER PLATES to those located on the outside of the truck frame rail. Insert one 5/8"-11 x 4" bolt through the rear hole in the hanger plate and truck frame rail. Position one 5/8"-11 top locking nut with 14" welded stock inside of the truck frame rail and fasten. *Note: Loosely attach all nuts until all undercarriage plates are positioned.*
3. Position the hanger plate cut-outs over the spring shackle bolt and leaf spring clamp mounts. Align the front mounting hole on the plate with the hole in the truck frame. Fasten the plate to the vehicle with one 5/8"-11 x 2-3/4" bolt and top lock nut.
4. Complete the hanger plate installation by positioning one 5/8"-11 x 4-1/2" bolt through the middle mounting hole in the plate. Secure the screw with one 5/8" top lock nut.
5. Repeat steps #2 through #4 for the opposite hanger plate. *Note: If your vehicle is equipped with oversize tires, the steering stop may need to be adjusted to prevent the tire from hitting the hanger plate.*
6. Mount the PUSH BEAM to the hanger plates using eight 1/2"-13 x 1-1/2" bolts and 1/2"-13 top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Replace the bumper using the existing hardware.
9. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

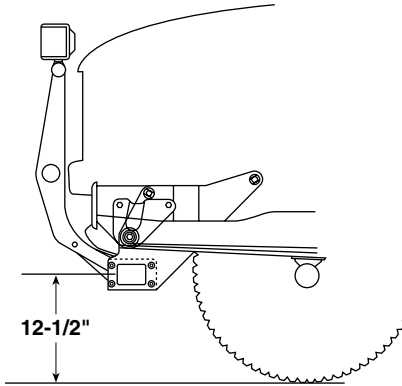


1987-1991 FORD F-250 & F-350 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31041	1	1987-1991 Ford F-250 & F-350 Series Undercarriage Assembly (Nos. 1-14)
1	31042	1	Passenger's Side Hanger Plate (1987-91 Ford F-250 & F-350)
2	31045	1	42-1/8" Push Beam (1987-91 Ford F-250 & F-350)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	31043	1	Driver's Side Hanger Plate (1987-91 Ford F-250 & F-350)
4	39032	1	Light Tower, Round Mounting Tube
5	61061	2	5/8"-11 x 2-3/4" Grade 8 YZ Hex Head Cap Screw
6	61065	2	5/8"-11 x 4-1/2" Grade 8 YZ Hex Head Cap Screw
7	61155	2	5/8"-11 x 4" Grade 8 YZ Hex Head Cap Screw
8	61161	2	5/8"-11 Grade C Z Top Lock Nut with Welded 14" Square Stock
9	61063	4	5/8"-11 Grade C Z Top Lock Nut
10	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
11	61020	10	1/2"-13 Grade C Z Top Lock Nut
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
13	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
14	61064	6	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
N/A	61157	1	1987-1991 Ford F-250 & F-350 Series Undercarriage Hardware Kit - Kit Includes: Nos. 5 - 14

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.

1992-1996 FORD F-150 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

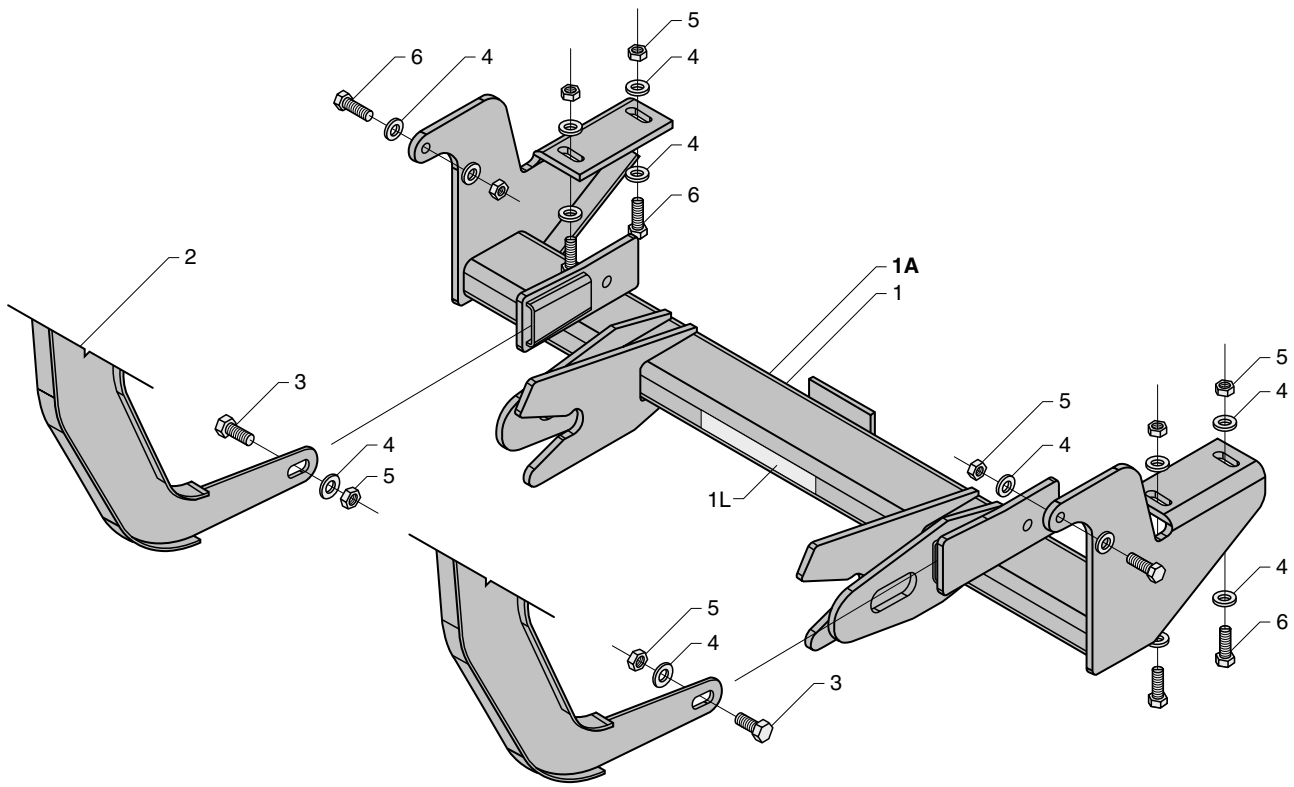


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the front bumper on the vehicle. There are four bolts with nuts that need to be removed. These are located on the inside of the TRUCK FRAME RAIL.
2. Remove the PLASTIC BUMPER FASCIA mounted to the bottom of the bumper. *Note: The bumper fascia will need to be permanently removed or notched to accommodate the undercarriage assembly.*
3. Align the REAR MOUNT HOLES on the UNDERCARRIAGE with the brackets located under each truck frame rail. *Note: Use a hydraulic floor jack to help facilitate the installation procedure.* Secure the push beam assembly to the truck with four 1/2"-13 x 1-1/2" bolts, double washers and top lock nuts.
4. Next, align the FRONT UNDERCARRIAGE MOUNT HOLES with the holes on the outside of the truck frame rail. Use 1/2"-13 x 1-1/2" bolts with double washers and top lock nuts to secure these mount points.
5. Replace the bumper using the existing hardware.
6. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

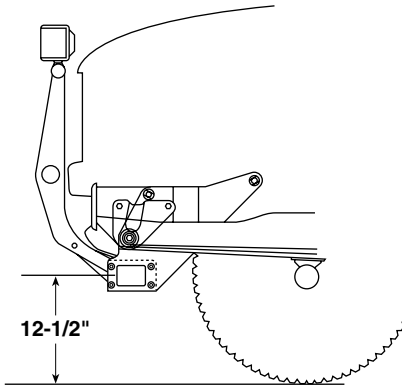


1992-1996 FORD F-150 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31056	1	1992-1996 Ford F-150 Series Undercarriage Assembly (Nos. 1 - 6)
1	31057	1	41-1/2" Push Beam (1992-1996 Ford F-150)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	39034	1	Light Tower, Round Mounting Tube - Model 760LD
3	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
4	61026	14	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
5	61020	8	1/2"-13 Grade C Z Top Lock Nut
6	61055	6	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
N/A	61208	1	1992-1996 Ford F-150 Series Undercarriage Hardware Kit - Kit Includes: Nos. 3 - 6

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1992-1998 FORD F-250 & F-350 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

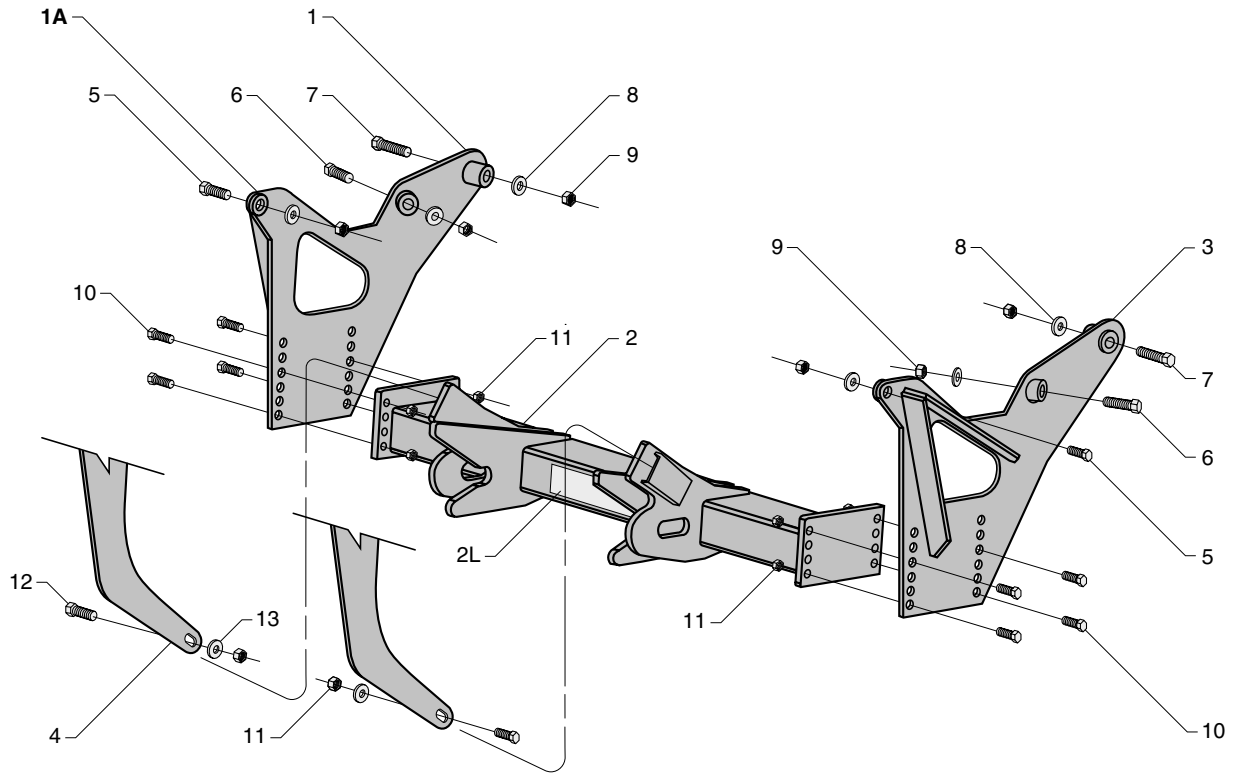


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the four nuts from the FRONT BUMPER MOUNT. Remove the bumper.
2. Position the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail. Attach one 5/8"-11 x 1-3/4" bolt through the front mount on the hanger plate and truck frame rail. Secure the bolt with one 5/8" washer and top lock nut on the inside of the frame rail. *Note: Use the opening at the end of the frame rail to access the nut and washer.*
3. Position one 5/8"-11 x 3-1/4" bolt through the rear mount on the hanger plate and truck frame rail. Secure the bolt with one 5/8" washer and top lock nut on the inside of the frame rail. *Note: Use an original opening cut into the frame rail behind the mounting hole to position the nut and washer.*
4. Position one 5/8"-11 x 2-3/4" bolt through the middle mount on the hanger plate and truck frame rail. Secure the bolt with one 5/8" washer and top lock nut on the inside of the frame rail. *Note: Use an original opening on the inside of the truck frame rail opposite of the mount to position the nut and washer.*
5. Repeat all three procedures above to securely mount the PASSENGER'S SIDE HANGER PLATE.
6. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

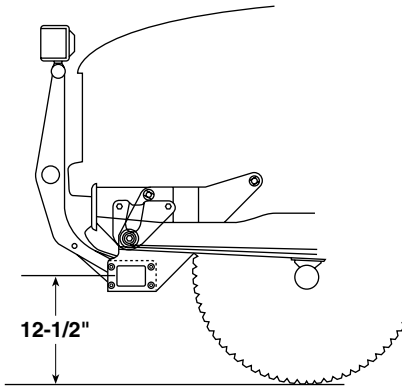


1992-1998 FORD F-250 & F-350 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31036	1	1992-1998 Ford F-250 & F-350 Series Undercarriage Assembly (Nos. 1- 13)
1	31013	1	Passenger's Side Hanger Plate (1992-1998 Ford F-250 & F-350)
2	31019	1	40-5/8" Push Beam (1992-1998 Ford F-250 & F-350)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	31011	1	Driver's Side Hanger Plate (1992-1998 Ford F-250 & F-350)
4	39032	1	Light Tower, Round Mounting Tube
5	61060	2	5/8"-11 x 1-3/4" Grade 8 YZ Hex Cap Screw
6	61061	2	5/8"-11 x 2-3/4" Grade 8 YZ Hex Cap Screw
7	61062	2	5/8"-11 x 3-1/4" Grade 8 YZ Hex Cap Screw
8	61064	6	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
9	61063	6	5/8"-11 Grade C Z Top Lock Nut
10	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
11	61020	10	1/2"-13 Grade C Z Top Lock Nut
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
13	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
N/A	61080	1	1992-1998 Ford F-250 & F-350 Series Undercarriage Hardware Kit - Kit Includes: Nos. 5 - 13

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1998-2000 FORD F-150 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

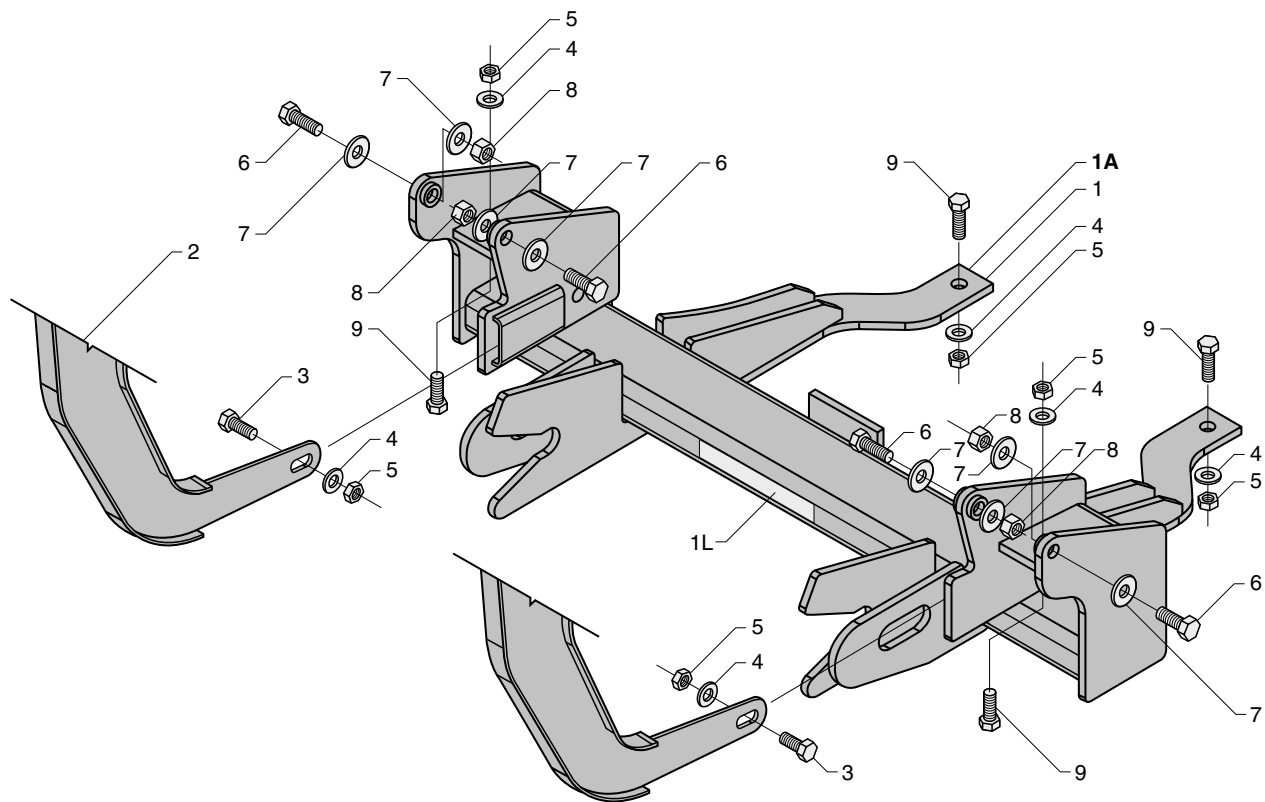


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the front bumper on the vehicle.
2. Remove the PLASTIC BUMPER FASCIA mounted to the bottom of the bumper. *Note: The bumper fascia will need to be permanently removed or notched to accommodate the undercarriage assembly.* Also, should your vehicle have frame rail mounted TOW HOOKS, these will need to be removed to facilitate the undercarriage installation. The push beam assembly will not install properly with the tow hooks in place.
3. Align the front mount holes on the UNDERCARRIAGE (at each end of the PUSH BEAM) with the tow hook mount holes on the TRUCK FRAME RAIL. *Note: Use a hydraulic floor jack to help facilitate the installation procedure.* Secure the push beam assembly to the truck with four 9/16"-12 x 1-1/2" bolts, double washers and top lock nuts. *Note: Loosely attach all nuts until the remaining hardware is in position.*
4. Next, align the REAR UNDERCARRIAGE MOUNT ARMS with the holes located in the middle of the TRUCK FRAME CROSSMEMBER. *Note: The crossmember contains two rubber access caps. Remove these caps to gain access to the interior of the crossmember.* Attach a thin gauge wire to each 1/2"-13 x 1-1/2" bolt and feed the wire through each crossmember access hole to the middle mount holes. Pull the bolt through the hole in the crossmember and undercarriage mount arms. Secure each bolt with one 1/2" washer and top lock nut. Replace rubber access caps.
5. Finish securing the undercarriage to the truck frame by placing two 1/2"-13 x 1-1/2" bolts through the bottom of the undercarriage at the tow hook mount holes located under the truck frame rail. Secure each bolt with one 1/2" washer and top lock nut.
6. Once the undercarriage has been positioned and all hardware is in place, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
7. Replace the bumper using the existing hardware.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

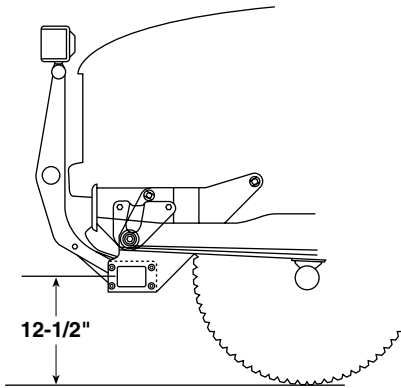


1998-2000 FORD F-150 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31046	1	1998-2000 Ford F-150 Series Undercarriage Assembly (Nos. 1 - 9)
1	31084	1	37" Push Beam (1998-2000 Ford F-150)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	39034	1	Light Tower, Round Mounting Tube - Model 760LD
3	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
4	61026	6	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
5	61020	6	1/2"-13 Grade C Z Top Lock Nut
6	61056	4	9/16"-12 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
7	61027	8	1/2", 1-3/8" O.D., 9/16" I.D. YZ USS Mil-Carb High-Strength Washer
8	61058	4	9/16"-12 Grade C Top Lock Nut
9	61055	4	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
N/A	61193	1	1998-2000 Ford F-150 Series Undercarriage Hardware Kit - Kit Includes: Nos. 3 - 9

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1999-2000 FORD EXPEDITION UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

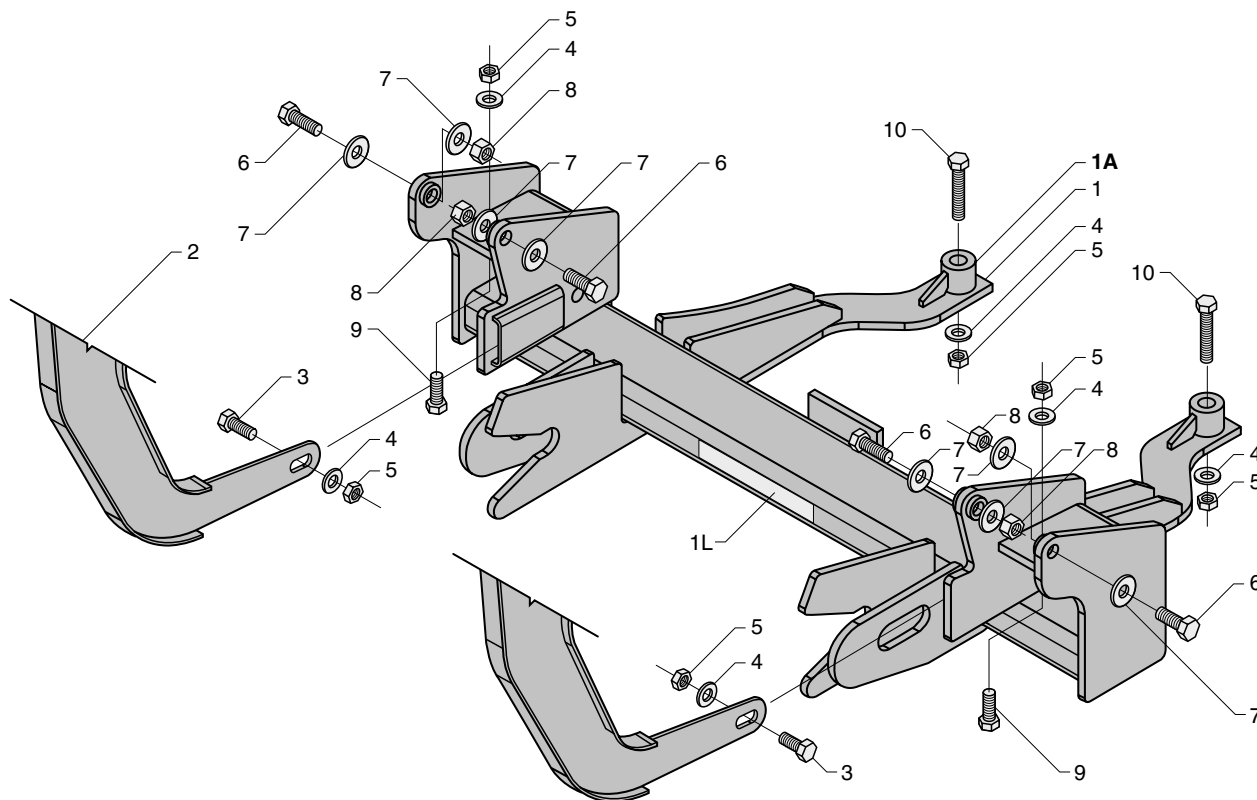


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the front bumper on the vehicle.
2. Remove the PLASTIC BUMPER FASCIA mounted to the bottom of the bumper. *Note: The bumper fascia will need to be permanently removed or notched to accommodate the undercarriage assembly.* Also, should your vehicle have frame rail mounted TOW HOOKS, these will need to be removed to facilitate the undercarriage installation. The push beam assembly will not install properly with the tow hooks in place.
3. Align the front mount holes on the UNDERCARRIAGE (at each end of the PUSH BEAM) with the tow hook mount holes on the TRUCK FRAME RAIL. *Note: Use a hydraulic floor jack to help facilitate the installation procedure.* Secure the push beam assembly to the truck with four 9/16"-12 x 1-1/2" bolts, double washers and top lock nuts. *Note: Loosely attach all nuts until the remaining hardware is in position.*
4. Next, align the REAR UNDERCARRIAGE MOUNT ARMS with the holes located in the middle of the TRUCK FRAME CROSSMEMBER. *Note: The crossmember contains two rubber access caps. Remove these caps to gain access to the interior of the crossmember.* Attach a thin gauge wire to each 1/2"-13 x 2-3/4" bolt and feed the wire through each crossmember access hole to the middle mount holes. Pull the bolt through the hole in the crossmember and undercarriage mount arms. Secure each bolt with one 1/2" washer and top lock nut. Replace rubber access caps.
5. Finish securing the undercarriage to the truck frame by placing two 1/2"-13 x 1-1/2" bolts through the bottom of the undercarriage at the tow hook mount holes located under the truck frame rail. Secure each bolt with one 1/2" washer and top lock nut.
6. Once the undercarriage has been positioned and all hardware is in place, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
7. Replace the bumper using the existing hardware.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

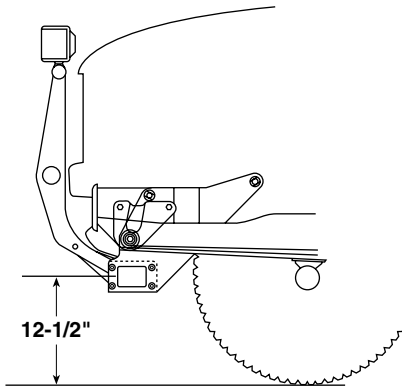


1999-2000 FORD EXPEDITION UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31085	1	1999-2000 Ford Expedition Undercarriage Assembly (Nos. 1 - 10)
1	31069	1	36-7/8" Push Beam (1999-2000 Ford Expedition)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	39034	1	Light Tower, Round Mounting Tube - Model 760LD
3	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
4	61026	6	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
5	61020	6	1/2"-13 Grade C Z Top Lock Nut
6	61056	4	9/16"-12 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
7	61027	8	1/2", 1-3/8" O.D., 9/16" I.D. YZ USS Mil-Carb High-Strength Washer
8	61058	4	9/16"-12 Grade C Top Lock Nut
9	61055	2	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
10	61276	2	1/2"-13 x 2-3/4" Grade 8 YZ Hex Head Cap Screw
N/A	61270	1	1999-2000 Ford Expedition Undercarriage Hardware Kit - Kit Includes: Nos. 3 - 10

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1999-2000 FORD F-250 & F-350 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

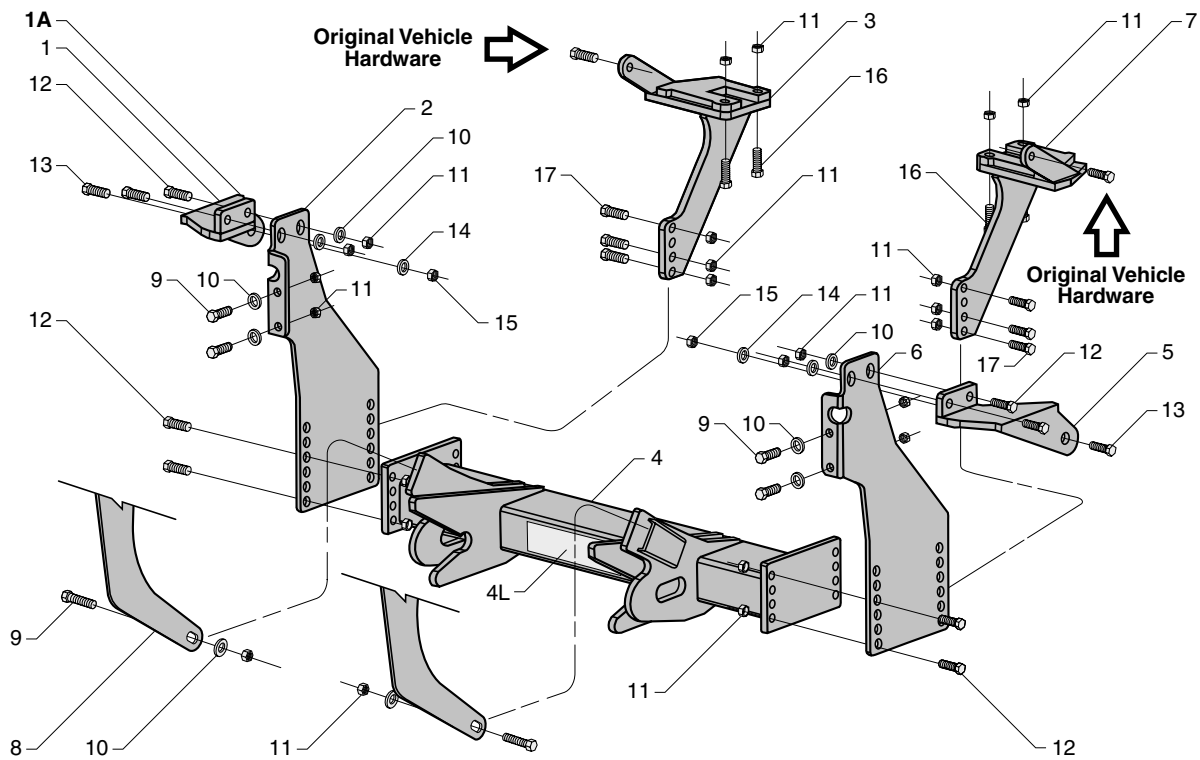


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the undercarriage assembly by removing the front bumper of the vehicle. There are four 1/2"-13 x 1-3/4" acorn head bolts with 1/2" washers, two nut plates and two bumper shim plates to remove. *Note: The bumper shim plate prohibits the proper mounting bolts from being installed. Either discard the plate or increase the size of the holes located on the front.*
2. Attach each HANGER PLATE (2) to the truck frame rails using two 1/2"-13 x 1-1/4" bolts and washers. Secure all bolts using a 1/2"-13 top lock nut. *Note: Loosely attach all nuts until all undercarriage plates are positioned.*
3. Rest both ZEE BRACKETS on the truck frame rail and fasten two 1/2"-13 x 1-1/2" bolts with washers to the hanger plate. Loosely tighten 1/2"-13 top lock nuts to all bolts.
4. Install one 9/16"-12 x 1-1/2" bolt with a 9/16" washer inside of the truck frame bumper bracket to the side zee bracket ear. Loosely thread a 9/16"-12 top lock nut to each bolt.
5. Mount the PUSH BEAM to the hanger plate using two 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
6. Remove the M12 x 1.75 x 35 (10.9 Gr.) rear spring shackle bolt with tabbed nut on the outside of the frame rail. Position each HANGER SUPPORT PLATE on the outside of the hanger plate and truck frame rail. Reattach the shackle bolt and tabbed nut. Bolt the support plate into the truck frame rail using two 1/2"-13 x 2" bolts. Secure the support plate to the hanger plate and push beam using two 1/2"-13 x 2-1/4" bolts and lock nuts.
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Replace the bumper using the existing hardware.
9. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

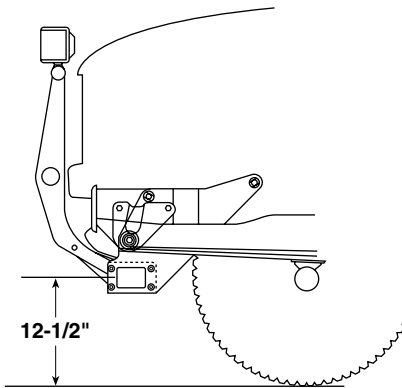


1999-2000 FORD F-250 & F-350 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31035	1	1999-2000 Ford F-250 & F-350 Series Undercarriage Assembly (Nos. 1 - 17)
1	31034P	1	Passenger's Side Zee Bracket (1999-2000 Ford F-250 & F-350)
2	31008P	1	Passenger's Side Hanger Plate (1999-2000 Ford F-250 & F-350)
3	31025	1	Passenger's Side Push Beam Support Arm (1999-2000 Ford F-250 & F-350)
4	31021	1	32-1/2" Push Beam (1999-2000 Ford F-250 & F-350)
4L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
5	31034D	1	Driver's Side Zee Bracket (1999-2000 Ford F-250 & F-350)
6	31008D	1	Driver's Side Hanger Plate (1999-2000 Ford F-250 & F-350)
7	31023	1	Driver's Side Push Beam Support Arm (1999-2000 Ford F-250 & F-350)
8	39032	1	Light Tower, Round Mounting Tube
9	61057	6	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
10	61026	10	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
11	61020	24	1/2"-13 Grade C Z Top Lock Nut
12	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
13	61056	2	9/16"-12 x 1-1/2" Grade 8 YZ Hex Cap Screw
14	61059	2	9/16", 1-3/16" O.D., 19/32" I.D. YZ SAE Mil-Carb High-Strength Washer
15	61058	2	9/16"-12 Grade C Z Top Lock Nut
16	61018	4	1/2"-13 x 2" Grade 8 YZ Hex Head Cap Screw
17	61054	6	1/2"-13 x 2-1/4" Grade 8 YZ Hex Head Cap Screw
N/A	61079	1	1999-2000 Ford F-250 & F-350 Series Undercarriage Hardware Kit - Kit Includes: Nos. 9 -17

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1999-2000 FORD F-450 & F-550 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

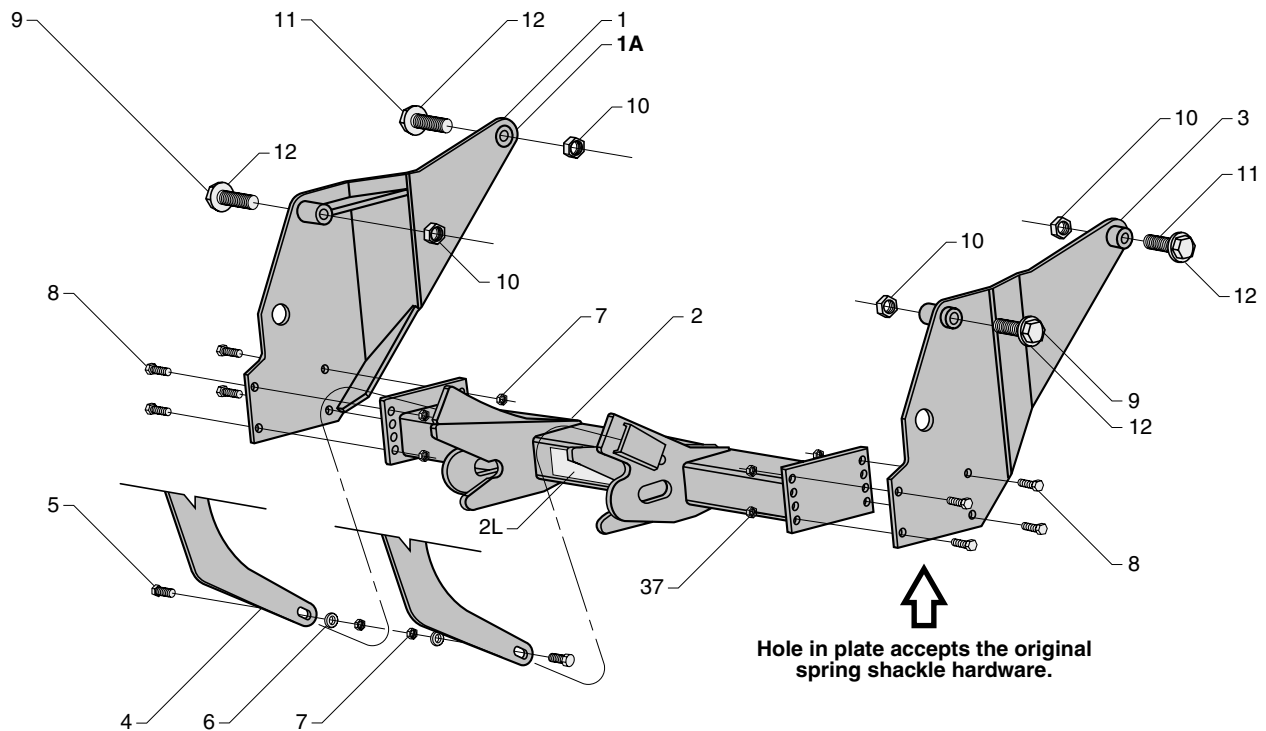


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by positioning the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail and in front of the shock mount. In this position, the plate will locate above the front spring shackle. Attach one 5/8"-11 x 3" bolt and washer through the top rear mount. Secure the bolt with one 5/8" top lock nut. *Note: There are two original openings cut into the frame rail. Use the rear opening to position a top lock nut for the 3" bolt inserted in the front opening.*
2. Position one 5/8"-11 x 4-1/2" bolt and washer through the top front mount. Use a 1" box end wrench to position one 5/8" top lock nut through the truck frame rail opening at the tow hook and securely fasten.
3. Repeat both of the procedures above for the PASSENGER'S SIDE HANGER PLATE.
4. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
5. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top locking nuts. Reference the chart on page 4 for maximum bolt torque.
6. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

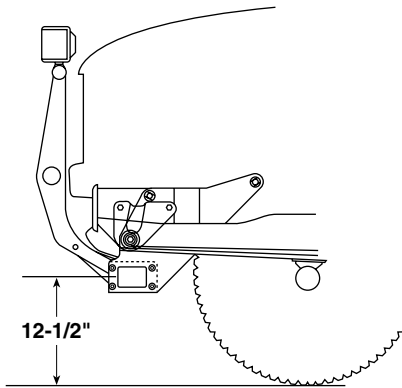


1999-2000 FORD F-450 & F-550 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	31037	1	1999-2000 Ford F-450 & F-550 Series Undercarriage Assembly (Nos. 1 - 12)
1	31027	1	Passenger's Side Hanger Plate (1999-2000 Ford F-450 & F-550)
2	31032	1	46" Push Beam (1999-2000 Ford F-450 & F-550)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	31026	1	Driver's Side Hanger Plate (1999-2000 Ford F-450 & F-550)
4	39032	1	Light Tower, Round Mounting Tube
5	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
6	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	10	1/2"-13 Grade C Z Top Lock Nut
8	61018	8	1/2"-13 x 2" Grade 8 YZ Hex Head Cap Screw
9	61065	2	5/8"-11 x 4-1/2" Grade 8 YZ Hex Cap Screw
10	61063	4	5/8"-11 Grade C Z Top Lock Nut
11	61066	2	5/8"-11 x 3" Grade 8 YZ Hex Cap Screw
12	61064	4	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
N/A	61081	1	1999-2000 Ford F-450 & F-550 Series Undercarriage Hardware Kit - Kit Includes: Nos. 5 -12

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1988-1998 CHEVROLET/GMC 1500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

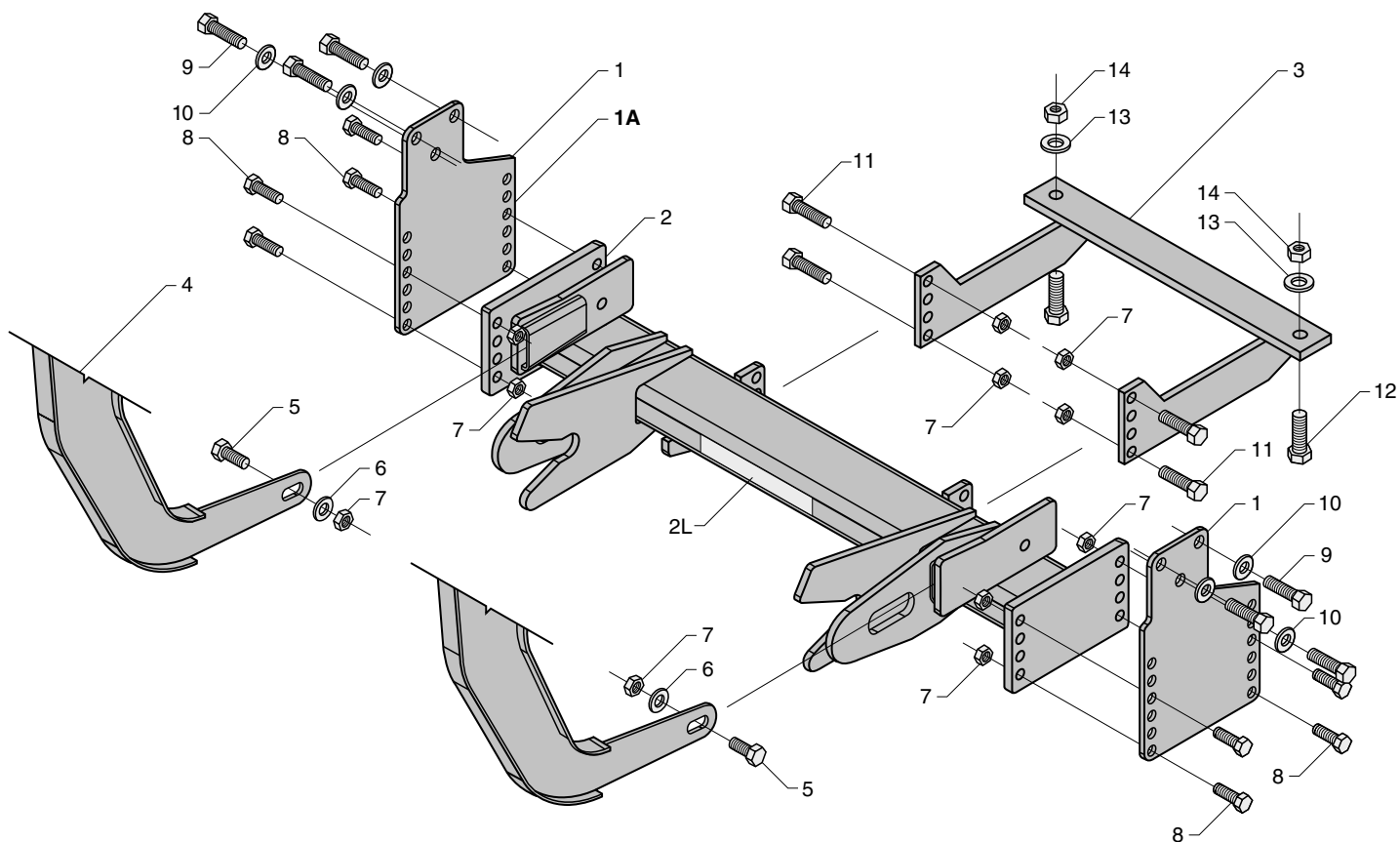


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the three metric bolts and washers that attach to the CORE SUPPORT MOUNT BRACKET and TRUCK FRAME RAIL on both sides of the truck. Discard all bolts and washers.
2. Position the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail and core support mount bracket. Secure three M14 x 2.0 x 45 (8.8 Gr.) bolts with M14 washers through each of the holes. *Note: Each hole contains a welded nut on the inside of the truck frame rail eliminating the need for new hardware. Repeat the same installation for the PASSENGER'S SIDE HANGER PLATE.*
3. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
4. Position the PUSH BEAM SUPPORT ARMS on the inside of the mounting brackets at the rear of the push beam. Secure each arm with two 1/2"- 13 x 1-3/4" bolts and 1/2" top lock nuts.
5. Secure the push beam support arms to the TRUCK FRAME CROSS-MEMBER with two 5/8"-11 x 2" bolts with washers and 5/8" nuts. *Note: The washers and nuts need to be positioned inside of the truck frame crossmember. Access to the interior of the crossmember can be found either behind the crossmember (older models) or to either side of it (newer models) depending on the date of manufacture.*
6. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
7. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

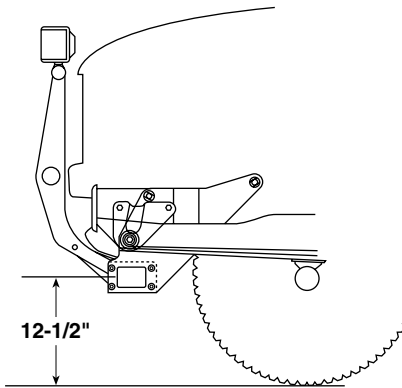


1988-1998 CHEV/GMC 1500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	30080	1	1988-1998 Chevrolet/GMC 1500 Series Undercarriage Assembly (Nos. 1 - 14)
1	30032	2	Passenger's & Driver's Side Hanger Plate (1988-98 Chev/GMC 1500, 2500 & 3500, 1999-2000 Chev/GMC 3500)
2	30081	1	34-3/32" Push Beam (1988-98 Chev/GMC 1500)
2L	61128	1	1-1/2" x 9" Push Beam Decal
3	30038	1	Push Beam Support Arm (1988-98 Chev/GMC 1500, 2500 & 3500, 1999-2000 Chev/GMC 3500)
4	39034	1	Light Tower, Round Mounting Tube - 760LD
5	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
6	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	14	1/2"-13 Grade C Z Top Lock Nut
8	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
9	61072	6	M14-2.0 x 45 Grade 8.8 Z Hex Head Cap Screw
10	61074	6	M14 I.D., 28 O.D. Z Flat Washer
11	61150	4	1/2"-13 x 1-3/4" Grade 8 YZ Hex Head Cap Screw
12	61071	2	5/8"-11 x 2" Grade 8 YZ Hex Cap Screw
13	61064	2	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
14	61063	2	5/8"-11 Grade C Z Top Lock Nut
N/A	61077	1	1988-1998 Chevrolet/GMC 1500, 2500 & 3500 Series, 1999-2000 Chevrolet/GMC 3500 Series Undercarriage Hardware Kit - Kit Includes: Nos. 5 - 14

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1982-1987 CHEVROLET/GMC 2500 & 3500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

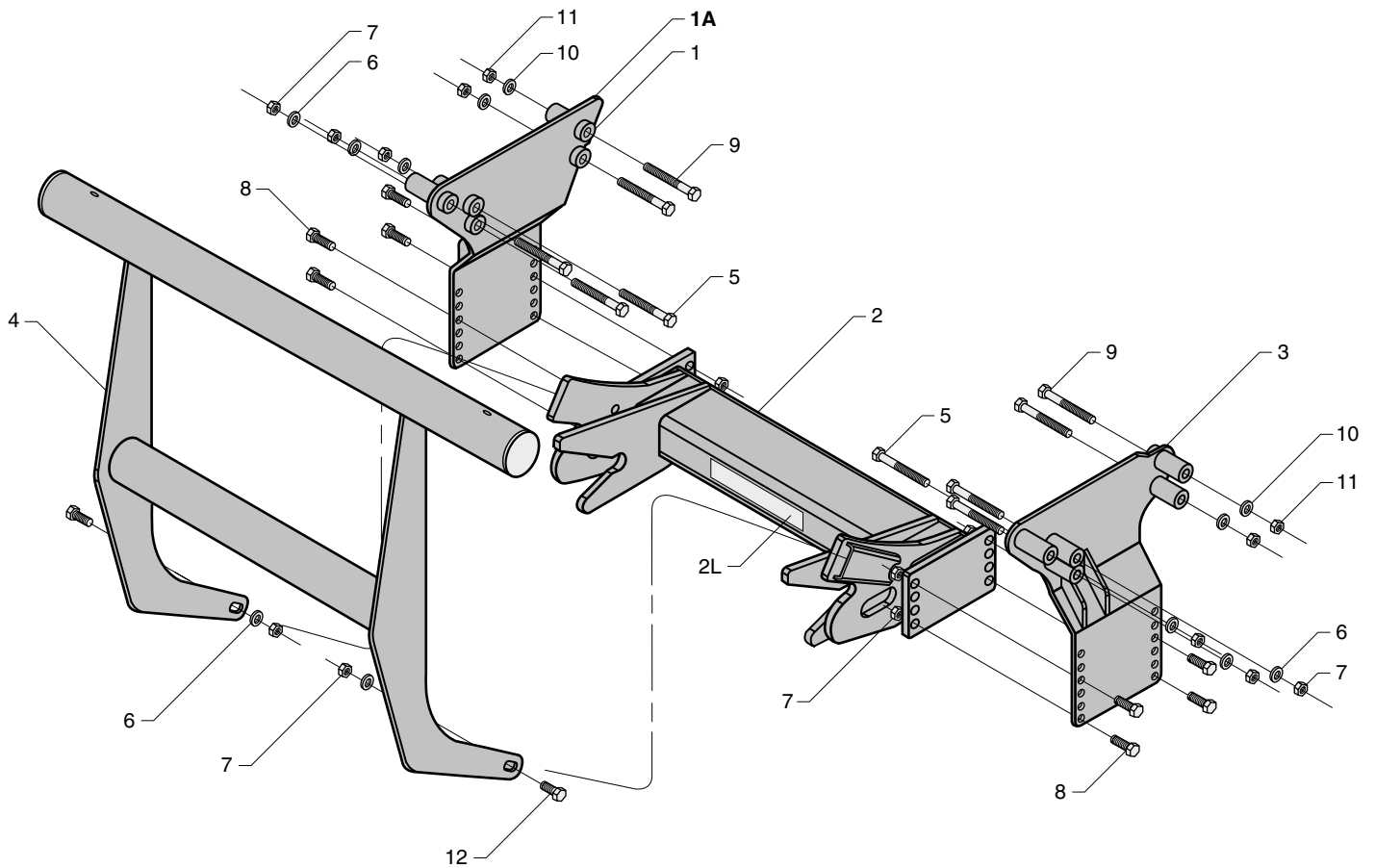


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing (if applicable) both 1/2"-13 x 2-1/2" bolts with washers and nuts that attach each tow hook to the truck frame rail. Discard all hardware.
2. Next, remove both 7/16"-14 x 1-1/4" bolts and 3/8" lock washers from the rear mount of each bumper support bracket. *Note: Each hole contains a welded nut on the inside of the truck frame rail eliminating the need for new hardware; however, top lock nuts and washers are provided should the welded nuts be corroded or the threads have been damaged.*
3. Position the DRIVER'S SIDE HANGER PLATE on the inside of the truck frame rail and in front of the sway bar crossmember. *Note: The bushings should rest against the frame and the gussets should face the vehicle's tires.* Align the top and bottom rear bushings with the holes for the bumper support bracket. Secure the plate with two 7/16"-14 x 4-1/2" bolts. If needed, replace the welded nuts on the frame with the 7/16" washers and top lock nuts provided.
4. Align the three front bushings on the hanger plate with the holes for the tow hook mounts located in the truck frame rail. Position one 1/2"-13 x 4-1/2" bolt through each bushing and secure with one 1/2" washer and top lock nut.
5. Repeat steps #3 & #4 to install the PASSENGER'S SIDE HANGER PLATE.
6. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
7. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" Grade 8 YZ hex cap screws with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

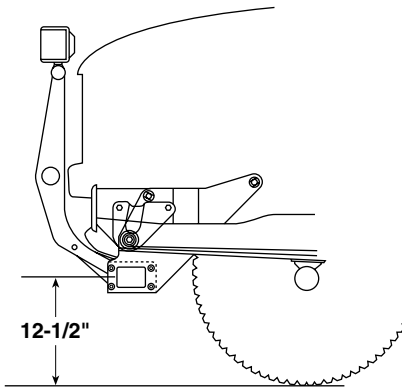


1982-1987 CHEVROLET/GMC 2500 & 3500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	30055	1	1982-1987 Chevrolet/GMC 2500 & 3500 Series Undercarriage Assembly (Nos. 1 - 12)
1	30048	1	Passenger's Side Hanger Plate (1982-87 Chevrolet/GMC 2500 & 3500)
2	30053	1	26-1/4" Push Beam (1982-87 Chev/GMC 2500, 3500 & 1979-93 Dodge 2500 & 3500)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	30046	1	Driver's Side Hanger Plate (1982-87 Chevrolet/GMC 2500 & 3500)
4	39032	1	Light Tower, Round Mounting Tube
5	61152	6	1/2"-13 x 4-1/2" Grade 8 YZ Hex Head Cap Screw
6	61026	8	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	16	1/2"-13 Grade C Z Top Lock Nut
8	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
9	61153	4	7/16"-14 x 4-1/2" Grade 8 YZ Hex Head Cap Screw
10	61162	4	7/16", 59/64" O.D., 15/32" I.D. YZ SAE Mil-Carb High-Strength Washer
11	61154	4	7/16"-14 Grade C Z Top Lock Nut
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
N/A	61156	1	1982-1987 Chevrolet/GMC 2500 & 3500 Series Undercarriage Hardware Kit - Kit Includes: Nos. 5 - 12

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.

1988-1998 CHEVROLET/GMC 2500 & 3500 SERIES, 1999-2000 CHEV/GMC 3500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

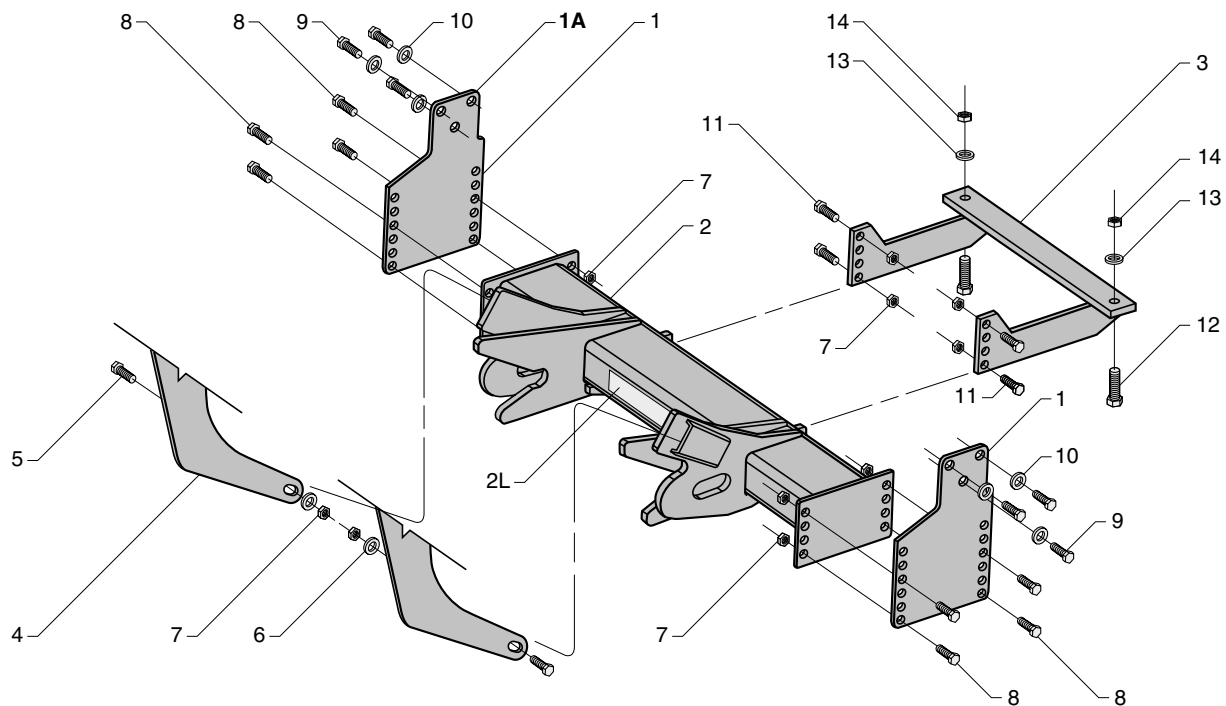


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the three metric bolts and washers that attach to the CORE SUPPORT MOUNT BRACKET and TRUCK FRAME RAIL on both sides of the truck. Discard all bolts and washers.
2. Position the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail and core support mount bracket. Secure three M14 x 2.0 x 45 (8.8 Gr.) bolts with M14 washers through each of the holes. *Note: Each hole contains a welded nut on the inside of the truck frame rail eliminating the need for new hardware. Repeat the same installation for the PASSENGER'S SIDE HANGER PLATE.*
3. Mount the PUSH BEAM to each hanger plate using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12" from the ground to the center of the beam.*
4. Position the PUSH BEAM SUPPORT ARMS on the inside of the mounting brackets at the rear of the push beam. Secure each arm with two 1/2"- 13 x 1-3/4" bolts and 1/2" top lock nuts.
5. Secure the push beam support arms to the TRUCK FRAME CROSS-MEMBER with two 5/8"-11 x 2" bolts with washers and 5/8" nuts. *Note: The washers and nuts need to be positioned inside of the truck frame crossmember. Access to the interior of the crossmember can be found either behind the crossmember (older models) or to either side of it (newer models) depending on the date of manufacture.*
6. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
7. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

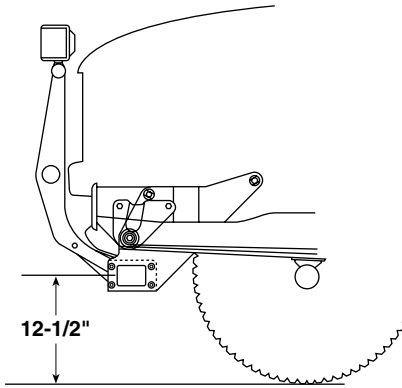


1988-98 CHEV/GMC 2500 & 3500 SERIES, 1999-2000 3500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	30043	1	1988-1998 Chevrolet/GMC 2500 & 3500 Series, 1999-2000 Chev/GMC 3500 Series Undercarriage Assembly (Nos. 1 - 14)
1	30032	2	Passenger's & Driver's Side Hanger Plate (1988-98 Chev/GMC 1500, 2500 & 3500, 1999-2000 Chev/GMC 3500)
2	30033	1	34-3/32" Push Beam (1988-98 Chev/GMC 2500 & 3500, 1999-2000 Chev/GMC 3500)
2L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
3	30038	1	Push Beam Support Arm (1988-98 Chev/GMC 1500, 2500 & 3500, 1999-2000 Chev/GMC 3500)
4	39032	1	Light Tower, Round Mounting Tube
5	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
6	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
7	61020	14	1/2"-13 Grade C Z Top Lock Nut
8	61055	8	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
9	61072	6	M14-2.0 x 45 Grade 8.8 Z Hex Head Cap Screw
10	61074	6	M14 I.D., 28 O.D. Z Flat Washer
11	61150	4	1/2"-13 x 1-3/4" Grade 8 YZ Hex Head Cap Screw
12	61071	2	5/8"-11 x 2" Grade 8 YZ Hex Cap Screw
13	61064	2	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
14	61063	2	5/8"-11 Grade C Z Top Lock Nut
N/A	61077	1	1988-1998 Chevrolet/GMC 1500, 2500 & 3500 Series, 1999-2000 Chevrolet/GMC 3500 Series Undercarriage Hardware Kit - Kit Includes: Nos. 5 - 14

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1988-2000 CHEV/GMC 1 TON HEAVY-DUTY 2WD UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

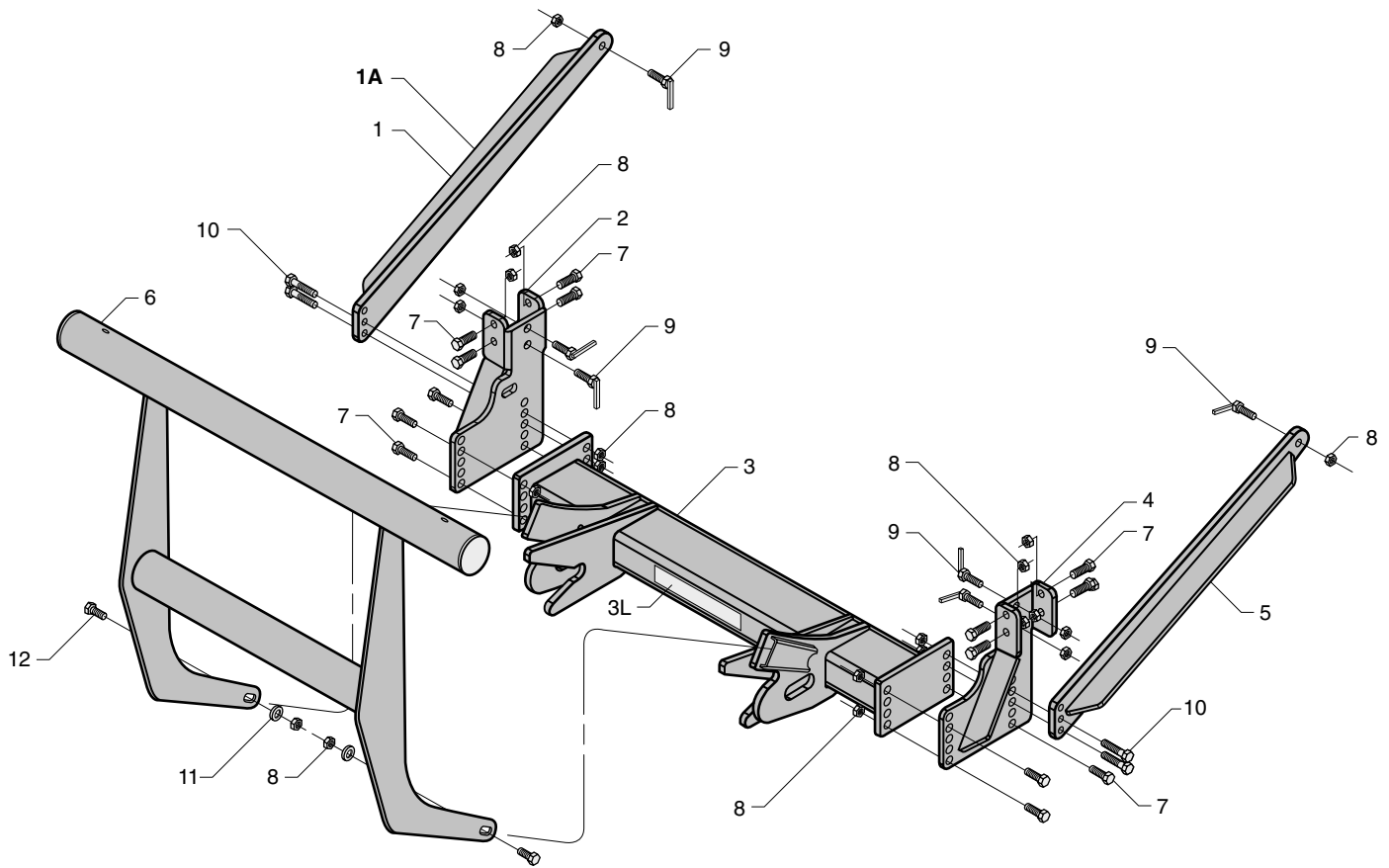


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing both M12-1.75 x 35 (8.8 Gr.) bolts with washers and flanged nuts from the rear mount of each bumper support bracket. Discard all hardware.
2. Next, position the DRIVER'S SIDE HANGER PLATE on the outside of the truck frame rail and into the core support mount on the frame. *Note: The cut-out in the hanger plate fits over the leaf spring clamp bolt.* Align the holes from the bumper support bracket mount to those on the hanger plate and secure using two 1/2"-13 x 1-1/2" bolts and 1/2" top lock nuts. Secure two additional 1/2"-13 x 1-1/2" bolts and nuts opposite the bumper support mount hardware.
3. Complete the hanger plate installation by installing two 1/2"-13 x 1-1/2" bolts with welded tabs through the middle mount holes. Attach a thin gauge wire to each screw and feed the wire through the opening in the frame at the spring shackle bolt. Pull the wire and hex cap screw through the bottom mount hole in the frame and hanger plate. Secure the cap screw with a 1/2" top lock nut. Repeat the same procedure for the top mount hole.
4. Repeat steps #2 & #3 to install the PASSENGER'S SIDE HANGER PLATE.
5. Mount the PUSH BEAM to the front hanger plate mount holes using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
6. Align the hole in the DRIVER'S SIDE PUSH BEAM SUPPORT ARM to the mount hole on the frame in front of the vehicle shock mount. Secure the support arm by "snaking" a 1/2"-13 x 1-1/2" bolt with welded tab through the opening in the frame at the spring shackle bolt. Pull the wire and bolt through the mount hole in the frame and support arm. Secure the bolt with a 1/2" top lock nut. Next, align the holes in the support arm to the rear mount holes on the hanger plate and push beam. Secure the plates using two 1/2"-13 x 2-1/4" bolts and 1/2" top lock nuts. Position a third bolt (1/2"-13 x 1-1/2") through the bottom mount hole in the hanger plate and push beam and secure with one 1/2" top lock nut.
7. Repeat step #6 to install the PASSENGER'S SIDE PUSH BEAM SUPPORT ARM.
8. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
9. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" Grade 8 YZ hex cap screws with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

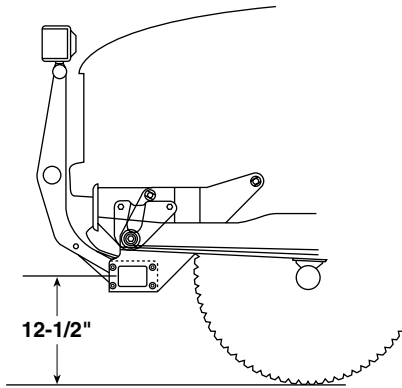


1988-2000 CHEVROLET/GMC 1 TON HD 2WD UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	30071	1	1988 - 2000 Chevrolet/GMC 1 Ton Heavy-Duty 2WD Undercarriage Assembly (Nos. 1 - 12)
1	30063	1	Passenger's Side Push Beam Support Arm (1988-2000 Chev/GMC 1 Ton HD 2WD)
2	30064	1	Passenger's Side Hanger Plate (1988-2000 Chev/GMC 1 Ton HD 2WD)
3	30070	1	37" Push Beam (1988-2000 Chev/GMC 1 Ton HD 2WD)
3L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
4	30065	1	Driver's Side Hanger Plate (1988-2000 Chev/GMC 1 Ton HD 2WD)
5	30067	1	Driver's Side Push Beam Support Arm (1988-2000 Chev/GMC 1 Ton HD 2WD)
6	39032	1	Light Tower, Round Mounting Tube
7	61055	14	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
8	61020	26	1/2"-13 Grade C Z Top Lock Nut
9	61151	6	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw with Welded Tab
10	61054	4	1/2"-13 x 2-1/4" Grade 8 YZ Hex Head Cap Screw
11	61026	8	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
12	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
N/A	61160	1	1988 - 2000 Chevrolet/GMC 1 Ton Heavy-Duty 2WD Undercarriage Hardware Kit - Kit Includes: Nos. 7 - 12

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.

2000 CHEVROLET/GMC 1500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

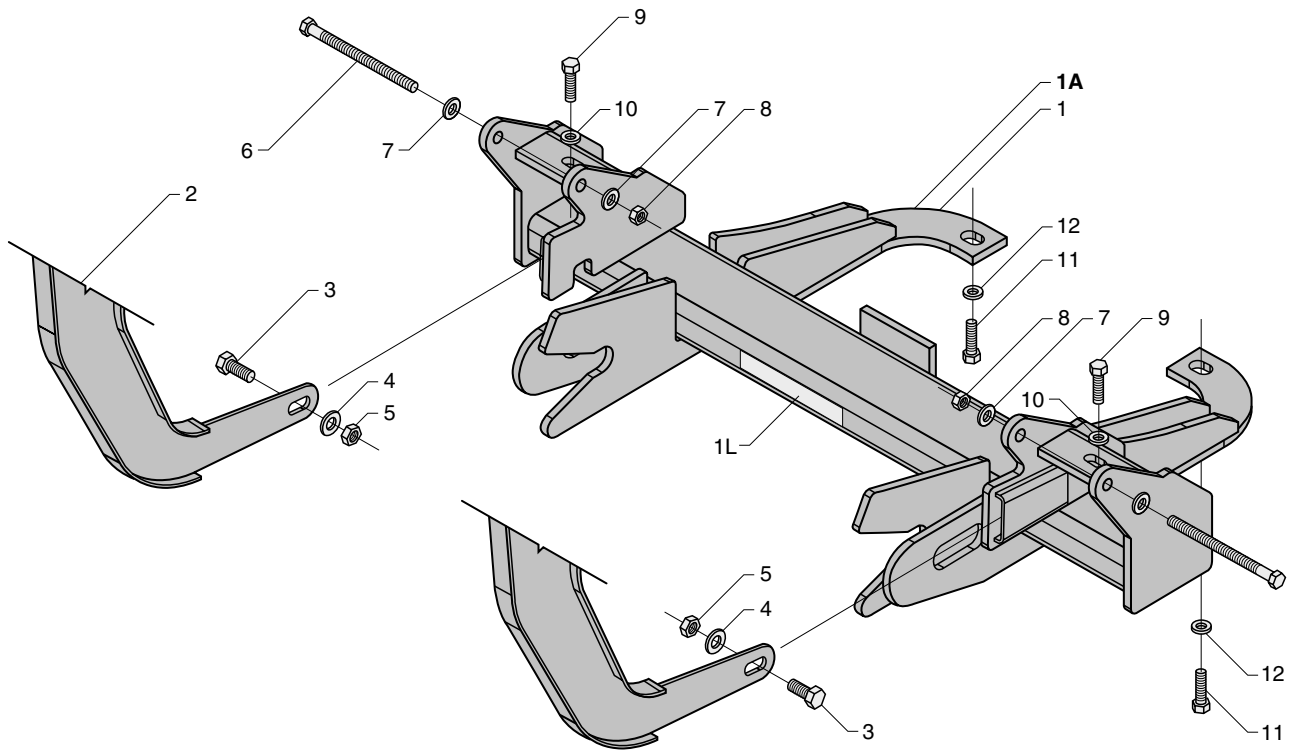


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the PLASTIC BUMPER FASCIA mounted to the bottom of the bumper. *Note: The bumper fascia will need to be permanently removed or notched to accommodate the undercarriage assembly.* Also, should your vehicle have frame rail mounted tow hooks, these will need to be removed to facilitate the undercarriage installation.
2. Remove the two metric bolts and washers from the REAR SPLASH GUARD MOUNT in the TRUCK FRAME CROSSMEMBER and discard. Align the front mount holes on the UNDERCARRIAGE (at each end of the PUSH BEAM) with the tow hook mount holes on the TRUCK FRAME RAIL. *Note: Use a hydraulic floor jack to help facilitate the installation procedure.*
3. Replace the TOW HOOKS inside of the truck frame rail and align the holes in the hooks with those in the truck frame and undercarriage. Secure the hooks and the undercarriage to the truck frame with two 7/16"-14 x 6" bolts, double washers and top lock nuts. *Note: Loosely attach all nuts until the remaining hardware is in position.*
4. Next, align the REAR UNDERCARRIAGE MOUNT ARMS with the holes in the rear splash guard and truck frame crossmember. Secure the guard to the crossmember with two M10-1.5 x 40 bolts and M10 washers. *Note: Each hole contains a welded nut on the inside of the truck frame crossmember eliminating the need for new hardware.*
5. Finish securing the undercarriage to the truck frame by placing two M12-1.75 x 40 bolts with washers through the CENTER TOW HOOK MOUNT on the undercarriage and truck frame rail. The bolts will tighten into the tow hook threads.
6. Once the undercarriage has been positioned and all hardware is in place, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
7. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

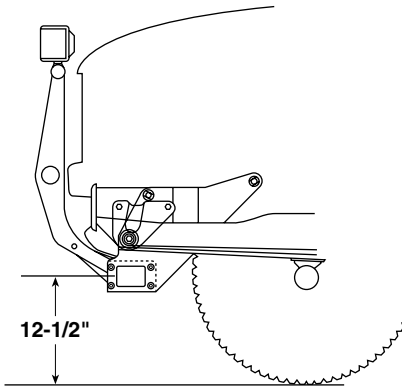


2000 CHEVROLET/GMC 1500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	30087	1	2000 Chevrolet / GMC 1500 Series Undercarriage Assembly (Nos. 1 - 12)
1	30072	1	35-3/4" Push Beam (2000 Chev/GMC 1500 Series)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	39034	1	Light Tower, Round Mounting Tube - Model 760LD
3	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
4	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
5	61020	2	1/2"-13 Grade C Z Top Lock Nut
6	61249	2	7/16"-14 x 6" Grade 8 YZ Hex Head Cap Screw
7	61162	4	7/16", 59/64" O.D., 15/32" I.D. YZ SAE Mil-Carb High-Strength Washer
8	61154	2	7/16"-14 Grade C Top Lock Nut
9	61069	2	M12-1.75 x 40 Grade 8.8 Z Hex Head Cap Screw
10	61070	2	M12 I.D., 24 O.D. Z Flat Washer
11	61250	2	M10-1.5 x 40 Grade 8.8 Z Hex Head Cap Screw
12	61251	2	M10 I.D., 21 O.D. Z Flat Washer
N/A	61194	1	2000 Chevrolet / GMC 1500 & 1500 Z-71 Off-Road Series Undercarriage Hardware Kit - Kit Includes: Nos. 3 - 12

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

2000 CHEVROLET/GMC 1500 Z-71 OFF-ROAD SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

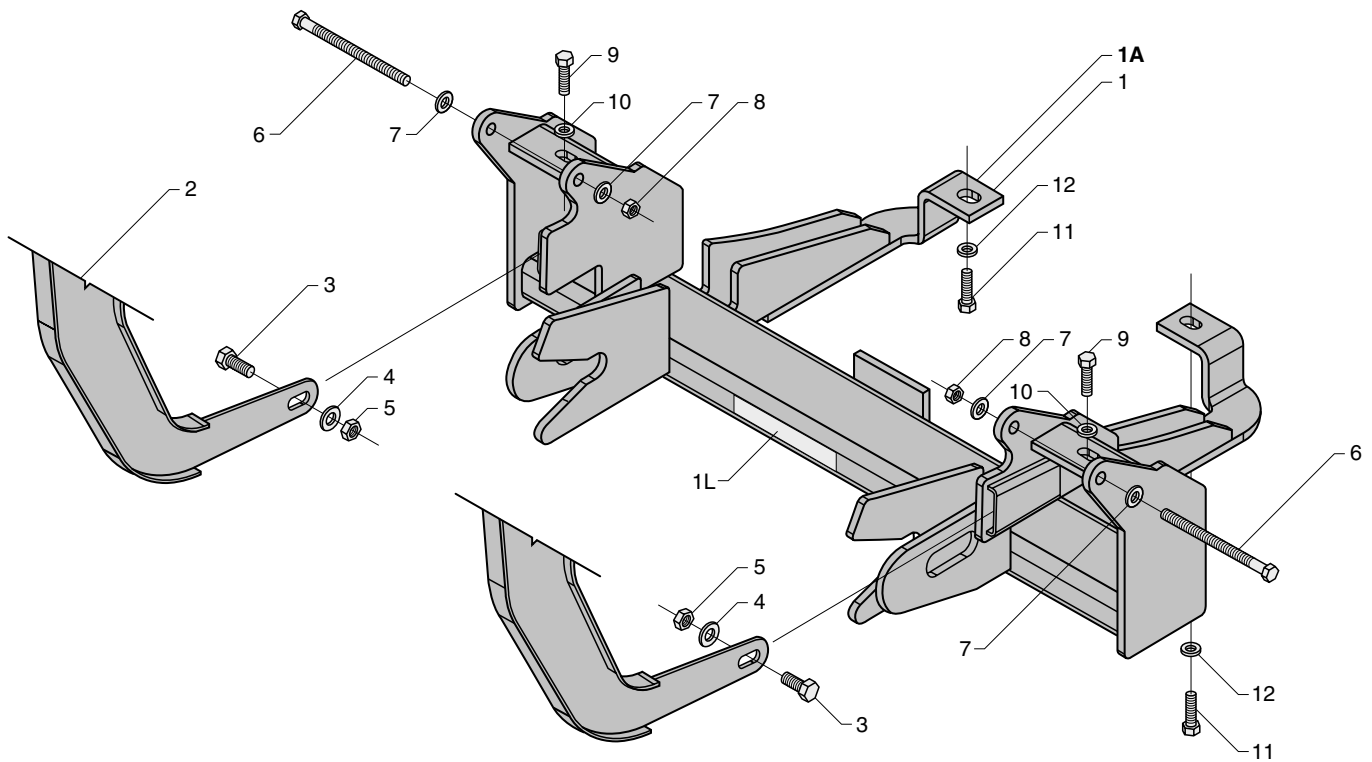


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by removing the PLASTIC BUMPER FASCIA mounted to the bottom of the bumper. *Note: The bumper fascia will need to be permanently removed or notched to accommodate the undercarriage assembly.* Also, should your vehicle have frame rail mounted tow hooks, these will need to be removed to facilitate the undercarriage installation.
2. Remove the two metric bolts and washers from the REAR SPLASH GUARD MOUNT in the TRUCK FRAME CROSSMEMBER and discard. Align the front mount holes on the UNDERCARRIAGE (at each end of the PUSH BEAM) with the tow hook mount holes on the TRUCK FRAME RAIL. *Note: Use a hydraulic floor jack to help facilitate the installation procedure.*
3. Replace the TOW HOOKS inside of the truck frame rail and align the holes in the hooks with those in the truck frame and undercarriage. Secure the hooks and the undercarriage to the truck frame with two 7/16"-14 x 6" bolts, double washers and top lock nuts. *Note: Loosely attach all nuts until the remaining hardware is in position.*
4. Next, align the REAR UNDERCARRIAGE MOUNT ARMS with the holes in the rear splash guard and truck frame crossmember. Secure the guard to the crossmember with two M10-1.5 x 40 bolts and M10 washers. *Note: Each hole contains a welded nut on the inside of the truck frame crossmember eliminating the need for new hardware.*
5. Finish securing the undercarriage to the truck frame by placing two M12-1.75 x 40 bolts with washers through the CENTER TOW HOOK MOUNT on the undercarriage and truck frame rail. The bolts will tighten into the tow hook threads.
6. Once the undercarriage has been positioned and all hardware is in place, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
7. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top locking nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

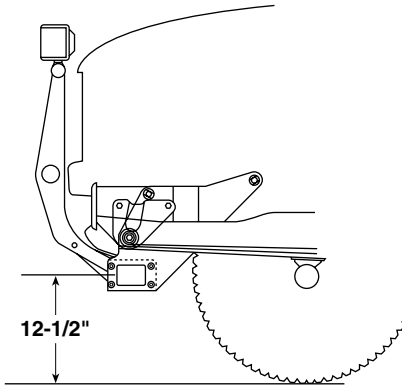


2000 CHEVROLET/GMC 1500 Z-71 OFF-ROAD SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	30088	1	2000 Chevrolet / GMC 1500 Z-71 Off-Road Series Undercarriage Assembly (Nos. 1 - 12)
1	30084	1	35-3/4" Push Beam (2000 Chev/GMC 1500 Z-71 Off-Road Series)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	39034	1	Light Tower, Round Mounting Tube - Model 760LD
3	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
4	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
5	61020	2	1/2"-13 Grade C Z Top Lock Nut
6	61249	2	7/16"-14 x 6" Grade 8 YZ Hex Head Cap Screw
7	61162	4	7/16", 59/64" O.D., 15/32" I.D. YZ SAE Mil-Carb High-Strength Washer
8	61154	2	7/16"-14 Grade C Top Lock Nut
9	61069	2	M12-1.75 x 40 Grade 8.8 Z Hex Head Cap Screw
10	61070	2	M12 I.D., 24 O.D. Z Flat Washer
11	61250	2	M10-1.5 x 40 Grade 8.8 Z Hex Head Cap Screw
12	61251	2	M10 I.D., 21 O.D. Z Flat Washer
N/A	61194	1	2000 Chevrolet / GMC 1500 & 1500 Z-71 Off-Road Series Undercarriage Hardware Kit - Kit Includes: Nos. 3 - 12

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1999-2000 CHEVROLET/GMC 2500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

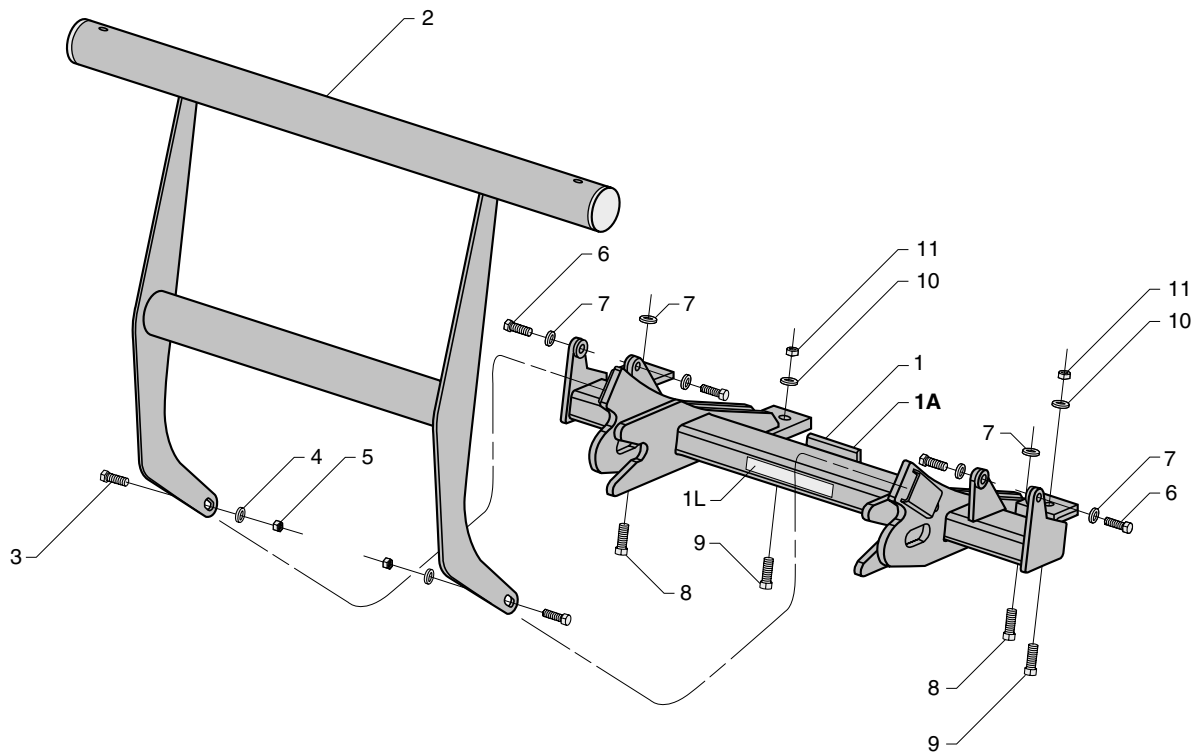


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the installation by removing the PLASTIC AIRFOIL mounted to the bottom of the front bumper. *Note: The airfoil will need to be permanently removed or notched to accommodate the undercarriage assembly.*
2. Remove and discard the three bolts that secure each tow hook to the truck frame. The tow hooks should remain in the same position.
3. Align the UNDERCARRIAGE MOUNTING POCKETS (at each end of the PUSH BEAM) with the tow hook mounting brackets on the vehicle. *Note: Use a hydraulic floor jack to help facilitate the installation procedure.*
4. Install two M12 x 1.75 x 45 (8.8 Gr.) bolts with M12 washers to the SIDE TOW HOOK MOUNT for each end of the assembly. *Note: Loosely attach all nuts until the remaining hardware is in position.*
5. Proceed to install one M12 x 1.75 x 40 (8.8 Gr.) bolt with an M12 washer through the TRUCK FRAME and REAR TOW HOOK MOUNT for each side of the push beam. Both bolts will tighten into the existing tow hook.
6. Install the the two 5/8"-11 x 2-1/4" bolts and 5/8" washers through the REAR SUPPORT ARMS and TRUCK FRAME CROSSMEMBER. Secure each bolt with a 5/8"-11 top lock nut.
7. Once the undercarriage is positioned with the appropriate hardware, tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
8. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

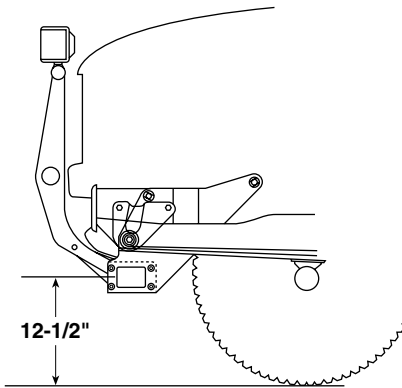


1999-2000 CHEVROLET/GMC 2500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	30042	1	1999-2000 Chevrolet / GMC 2500 Series Undercarriage Assembly (Nos. 1 - 11)
1	30037	1	37" Push Beam (1999-2000 Chev/GMC 2500 Series)
1L	61128	1	1-1/2" x 9" Push Beam Decal
2	39032	1	Light Tower, Round Mounting Tube
3	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
4	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
5	61020	2	1/2"-13 Grade C Z Top Lock Nut
6	61068	4	M12-1.75 x 45 Grade 8.8 Z Hex Head Cap Screw
7	61070	6	M12 I.D., 24 O.D. Z Flat Washer
8	61069	2	M12-1.75 x 40 Grade 8.8 Z Hex Head Cap Screw
9	61067	2	5/8"-11 x 2-1/4" Grade 8 YZ Hex Cap Screw
10	61064	2	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
11	61063	2	5/8"-11 Grade C Z Top Lock Nut
N/A	61076	1	1999-2000 Chevrolet / GMC 2500 Series Undercarriage Hardware Kit - Kit Includes: Nos. 3 - 11

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1979-1993 DODGE 2500 & 3500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

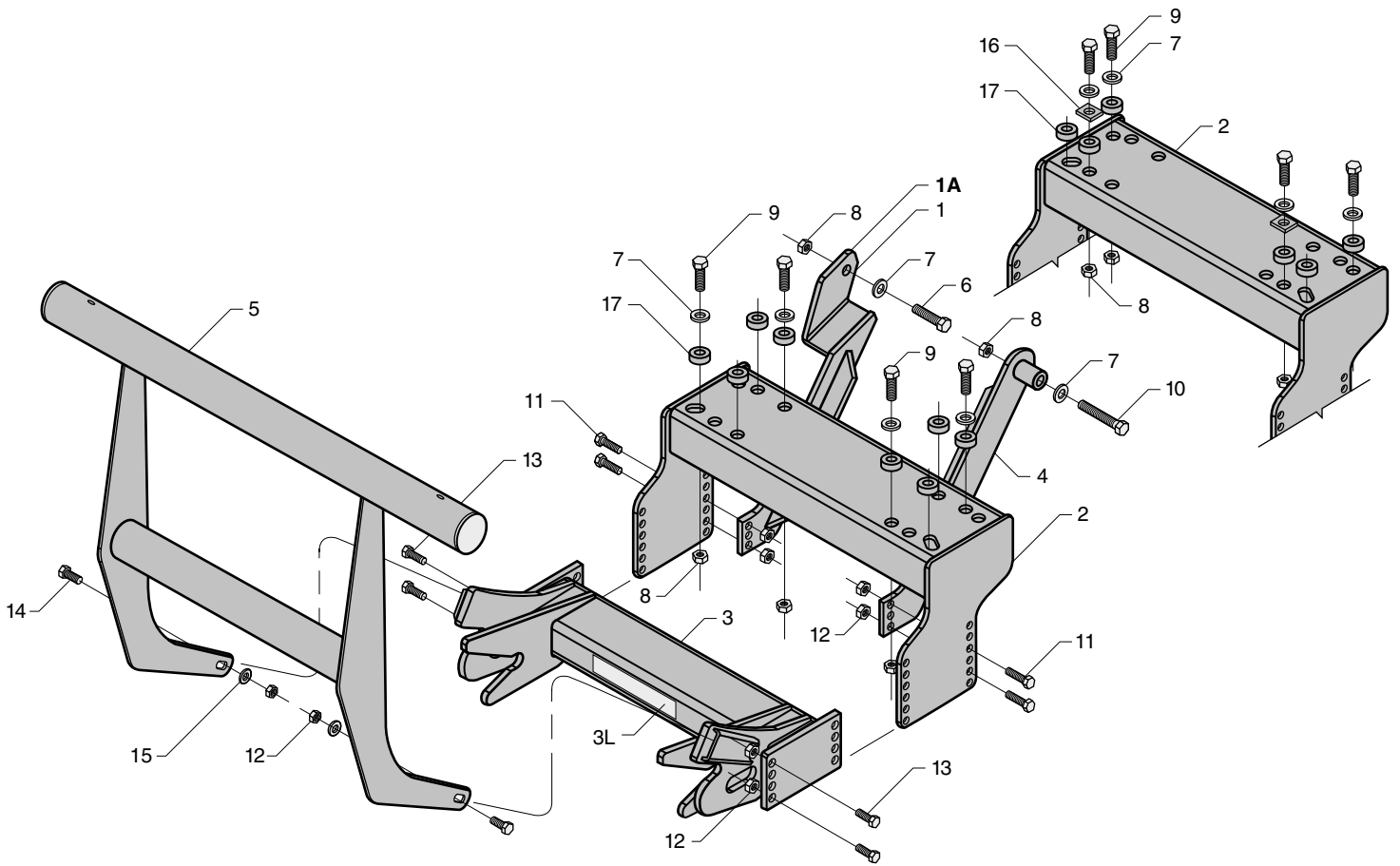


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the assembly by mounting the HANGER PLATE WELDMENT to the front crossmember. *Note: Depending on the model of your vehicle, the hole locations in the crossmember may be different. Review the diagram to the right for proper bushing and/or spacer mount positions.* Once you have determined the mount locations for the hanger plate, insert the STEPPED BUSHINGS and SPACERS (if needed) into position. Secure the hanger plate to the crossmember using four 5/8"-11 x 2" Grade 8 YZ hex cap screws with washers and top lock nuts.
2. Mount the PUSH BEAM to the front hanger plate mount holes using four 1/2"-13 x 1-1/2" bolts and top lock nuts. *Note: The proper height for the push beam is approximately 12-1/2" from the ground to the center of the push beam.*
3. Align the hole in the DRIVER'S SIDE PUSH BEAM SUPPORT ARM to the mount hole on the frame located behind the steering box. *Note: The support arm mounts on the inside of the truck frame rail and leaf spring.* Secure the arm to the frame with one 5/8"-11 x 4" bolt, washer and top lock nut. Complete the support arm installation by aligning the holes in the arm to the rear mount holes on the inside of the hanger plate and push beam. Secure the arm with two 1/2"-13 x 1-3/4" bolts and top lock nuts.
4. Next, position the PASSENGER'S SIDE PUSH BEAM SUPPORT ARM on the outside of the truck frame rail and inside of the leaf spring. Align the hole in the support arm with the mount hole on the frame located approximately 14" back from the core support mount. Secure the arm to the frame with one 5/8"-11 x 1-3/4" bolt, washer and top lock nut. Complete the mount by fastening the arm to the rear mount holes on the inside of the hanger plate with two 1/2"-13 x 1-3/4" bolts and top lock nuts.
5. Once all of the undercarriage plates have been positioned and the proper push beam height is set, proceed to tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
6. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" Grade 8 YZ hex cap screws with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.



1979-1993 DODGE 2500 & 3500 SERIES UNDERCARRIAGE PARTS LIST

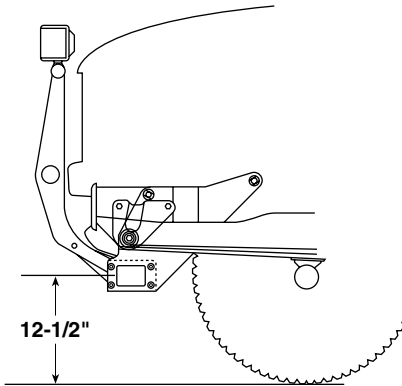
Ref. No.	Part No.	Qty.	Part Description
1A	32034	1	1979-1993 Dodge 2500 & 3500 Series Undercarriage Assembly (Nos. 1 - 17)
1	32031	1	Passenger's Side Hanger Plate Support Arm (1979-93 Dodge 2500 & 3500)
2	32023	1	Passenger's Side & Driver's Side Hanger Plate Weldment (1979-93 Dodge 2500 & 3500)
3	30053	1	26-1/4" Push Beam (1979-93 Dodge 2500 & 3500 & 1982-87 Chev/GMC)
3L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
4	32032	1	Driver's Side Hanger Plate Support Arm (1979-93 Dodge 2500 & 3500)
5	39032	1	Light Tower, Round Mounting Tube
6	61060	1	5/8"-11 x 1-3/4" Grade 8 YZ Hex Head Cap Screw
7	61064	6	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
8	61063	6	5/8"-11 Grade C Z Top Lock Nut
9	61071	4	5/8"-11 x 2" Grade 8 YZ Hex Head Cap Screw
10	61155	1	5/8"-11 x 4" Grade 8 YZ Hex Head Cap Screw
11	61150	4	1/2"-13 x 1-3/4" Grade 8 YZ Hex Head Cap Screw
12	61020	10	1/2"-13 Grade C Z Top Lock Nut
13	61055	4	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
14	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
15	61026	2	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
*16	32035	2	1-1/2" x 1/4" x 1-1/4" Spacer with 11/16" Dia. Hole
**17	52011	8	1-1/2" O.D., 5/8" I.D., 3/4" Stepped Bushing
N/A	32036	1	1979-93 Dodge Bushing & Spacer Kit - Kit Includes: No. 16 - 17
N/A	61158	1	1979-93 Dodge 2500 & 3500 Series Undercarriage Hardware Kit - Kit Includes: Nos. 6 - 17

* Both spacers are used on the front, inside stepped bushings located on top of the hanger plate weldment. These are only needed for the Dodge (1 ton) undercarriage.

** Depending on the vehicle, the quantity and location of the stepped bushings to be used can change. The (3/4 ton) requires 8 stepped bushings and the (1 ton) has 6. Refer to the diagram above for proper bushing orientation.

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams issued. Always review the part number given for proper component identification.

1994-2000 DODGE 1500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

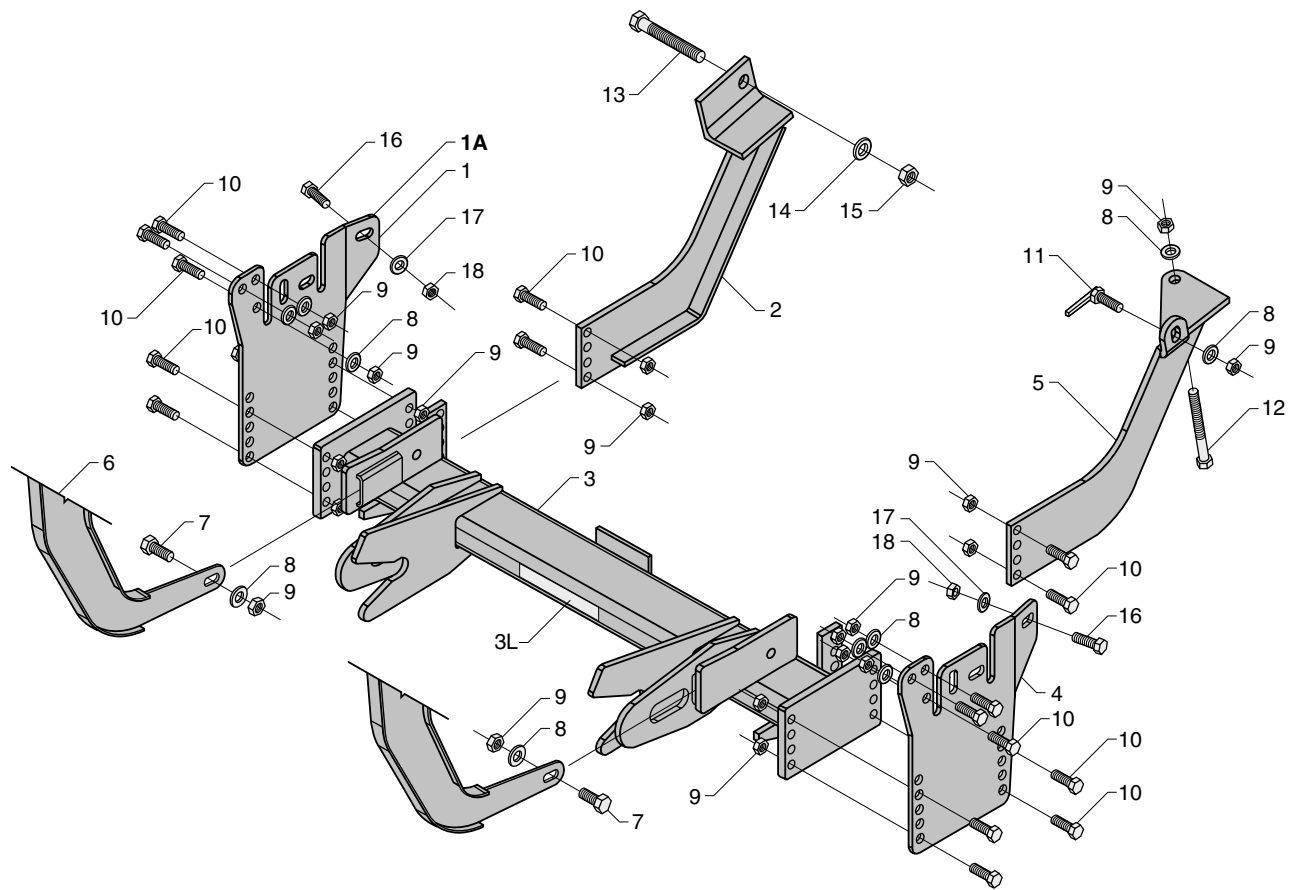


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the undercarriage assembly by removing the metric bolts that attach the bumper to the TRUCK FRAME RAIL and both bolts from the BUMPER SUPPORT ARMS.
2. Proceed to install each HANGER PLATE to the outside of the truck frame rail using three 1/2"-13 x 1-1/2" bolts with 1/2" washers and top lock nuts.
3. Attach the bumper support arms to the rear hanger plate mount using one M12-1.75 x 45 bolt with M12 washers and top lock nuts.
4. Install the PASSENGER'S SIDE PUSH BEAM SUPPORT ARM to the truck frame rail in front of the engine crossmember (bottom hole). Secure with one 5/8"-11 x 4-1/2" bolt, washer and a top lock nut.
5. Install the DRIVER'S SIDE PUSH BEAM SUPPORT ARM to the truck frame rail and crossmember located under the steering shaft. Mount one 1/2"-13 x 5" bolt and washer from the underside of the crossmember and secure with one top lock nut.
6. Proceed to install one 1/2"-13 x 1-1/2" bolt with welded tab on the driver side support arm to the truck frame rail. "Snake" the welded bolt through the access hole behind the support arm on the truck frame rail using a stiff wire. Position the bolt through the hole with the welded tab on the interior of the rail. *Note: The welded tab will prohibit the bolt from turning while tightening the 1/2" nut and washer.*
7. Attach the PUSH BEAM to each hanger plate using eight 1/2"-13 x 1-1/2" bolts. Attach both push beam support arms to the brackets at the rear of the push beam using four 1/2"-13 x 1-1/2" bolts. Secure all bolts with 1/2" top lock nuts.
8. Once the undercarriage is positioned with the appropriate hardware, tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
9. Replace the bumper and bumper support arms with the original hardware.
10. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.

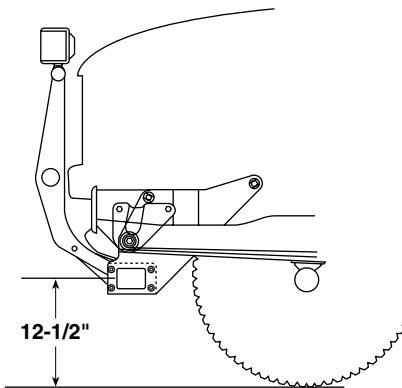


1994-2000 DODGE 1500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	32037	1	1994-2000 Dodge 1500 Series Undercarriage Assembly (Nos. 1 - 18)
1	32045	1	Passenger's Side Hanger Plate (1994-2000 Dodge 1500)
2	32014	1	Passenger's Side Push Beam Support Arm (1994-2000 Dodge 1500, 2500 & 3500)
3	32043	1	36-1/4" Push Beam (1994-2000 Dodge 1500)
3L	61128	1	1-1/2" x 9" Push Beam Decal
4	32038	1	Driver's Side Hanger Plate (1994-2000 Dodge 1500)
5	32017	1	Driver's Side Push Beam Support Arm (1994-2000 Dodge 1500, 2500 & 3500)
6	39034	1	Light Tower, Round Mounting Tube - Model 760LD
7	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
8	61026	10	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
9	61020	22	1/2"-13 Grade C Z Top Lock Nut
10	61055	18	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
11	61151	1	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw with Welded Tab
12	61075	1	1/2"-13 x 5" Grade 8 YZ Hex Head Cap Screw
13	61065	1	5/8"-11 x 4-1/2" Grade 8 YZ Hex Cap Screw
14	61064	1	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
15	61063	1	5/8"-11 Grade C Z Top Lock Nut
16	61068	2	M12-1.75 x 45 Grade 8.8 Z Hex Head Cap Screw
17	61070	2	M12 I.D., 24 O.D. Z Flat Washer
18	61271	2	M12-1.75 Class C Top Lock Nut
N/A	61078	1	1994-2000 Dodge 1500, 2500 & 3500 Series Hardware Kit - Kit Includes: Nos. 7 - 18

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

1994-2000 DODGE 2500 & 3500 SERIES UNDERCARRIAGE



The recommended push beam height for all undercarriage assemblies is 12-1/2" from the center of the push beam to level ground. DO NOT exceed 14" in height for any undercarriage.



WARNING: Most new trucks are equipped with driver and passenger's side air bags. DO NOT remove, disable, or reposition any sensory equipment related to the safe operation of the air bags.

ALWAYS follow the vehicle manufacturer's recommendations for installing snowplowing equipment.

Failure to comply with the above warning may result in serious injury or death.

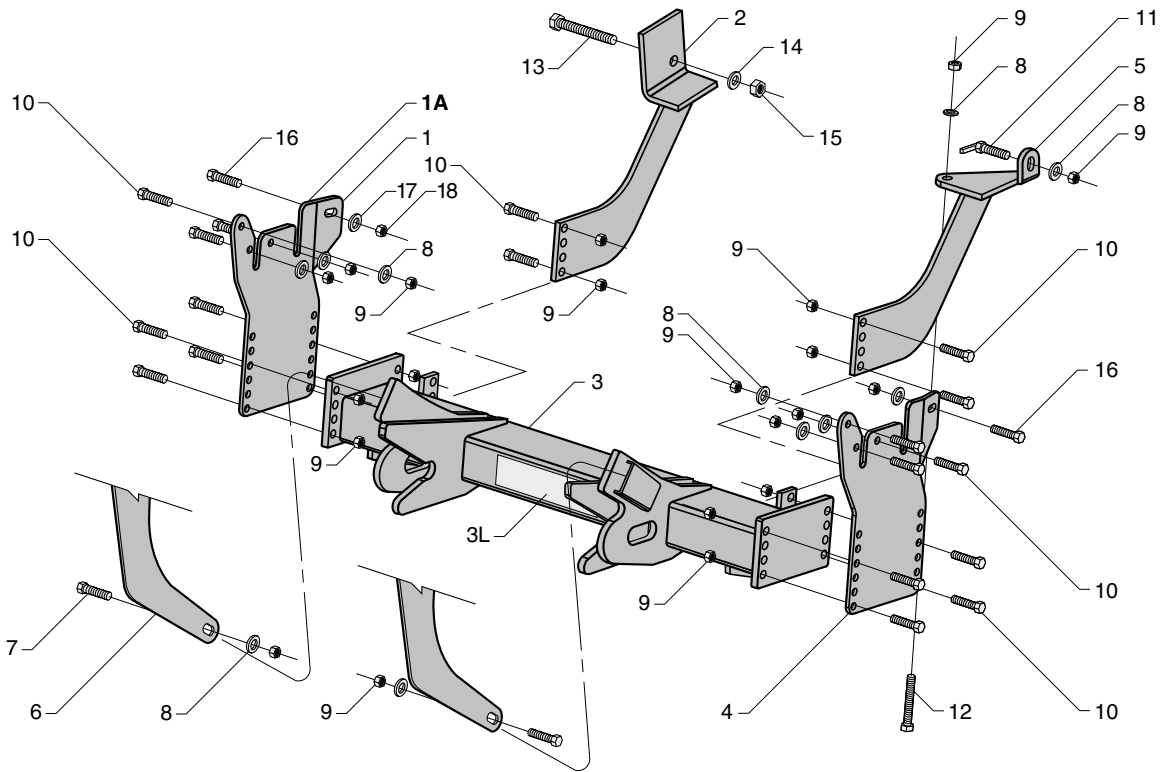


CAUTION: If your vehicle is equipped with oversize tires, they may come into contact with the undercarriage hanger plates when turning the vehicle.

The problem may be resolved by setting the steering stops on the vehicle. If this does not correct the problem, the original tires will need to be installed on the vehicle.

1. Begin the undercarriage assembly by removing the metric bolts that attach the bumper to the TRUCK FRAME RAIL and both bolts from the BUMPER SUPPORT ARMS.
2. Proceed to install each HANGER PLATE to the outside of the truck frame rail using three 1/2"-13 x 1-1/2" bolts with 1/2" washers and top lock nuts.
3. Attach the bumper support arms to the rear hanger plate mount using one M12-1.75 x 45 bolt with M12 washers and top lock nuts.
4. Install the PASSENGER'S SIDE PUSH BEAM SUPPORT ARM to the truck frame rail in front of the engine crossmember (bottom hole). Secure with one 5/8"-11 x 4-1/2" bolt, washer and a top lock nut.
5. Install the DRIVER'S SIDE PUSH BEAM SUPPORT ARM to the truck frame rail and crossmember located under the steering shaft. Mount one 1/2"-13 x 5" bolt and washer from the underside of the crossmember and secure with one top lock nut.
6. Proceed to install one 1/2"-13 x 1-1/2" bolt with welded tab on the driver side support arm to the truck frame rail. "Snake" the welded bolt through the access hole behind the support arm on the truck frame rail using a stiff wire. Position the bolt through the hole with the welded tab on the interior of the rail. *Note: The welded tab will prohibit the bolt from turning while tightening the 1/2" nut and washer.*
7. Attach the PUSH BEAM to each hanger plate using eight 1/2"-13 x 1-1/2" bolts. Attach both push beam support arms to the brackets at the rear of the push beam using four 1/2"-13 x 1-1/2" bolts. Secure all bolts with 1/2" top lock nuts.
8. Once the undercarriage is positioned with the appropriate hardware, tighten all top lock nuts. Reference the chart on page 4 for maximum bolt torque.
9. Replace the bumper and bumper support arms with the original hardware.
10. Position the LIGHT TOWER into the accepting pockets on the push beam and tighten using two 1/2"-13 x 1-1/4" bolts with washers. Secure each bolt with a 1/2" top lock nut. Mount each PLOW HEADLIGHT to the light tower with the hardware kit provided.

Complete the assembly by plugging the connectors from the lights into the connectors on the vehicle wire harness.



1994-2000 DODGE 2500 & 3500 SERIES UNDERCARRIAGE PARTS LIST

Ref. No.	Part No.	Qty.	Part Description
1A	32012	1	1994-2000 Dodge 2500 & 3500 Series Undercarriage Assembly (Nos. 1 - 18)
1	32019P	1	Passenger's Side Hanger Plate (1994-2000 Dodge 2500 & 3500)
2	32014	1	Passenger's Side Push Beam Support Arm (1994-2000 Dodge 1500, 2500 & 3500)
3	32005	1	36-1/4" Push Beam (1994-2000 Dodge 2500 & 3500)
3L	61085	1	2-1/8" x 13-1/8" Push Beam Decal
4	32019D	1	Driver's Side Hanger Plate (1994-2000 Dodge 2500 & 3500)
5	32017	1	Driver's Side Push Beam Support Arm (1994-2000 Dodge 1500, 2500 & 3500)
6	39032	1	Light Tower, Round Mounting Tube
7	61057	2	1/2"-13 x 1-1/4" Grade 8 YZ Hex Head Cap Screw
8	61026	10	1/2", 1-1/16" O.D., 17/32" I.D. YZ SAE Mil-Carb High-Strength Washer
9	61020	22	1/2"-13 Grade C Z Top Lock Nut
10	61055	18	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw
11	61151	1	1/2"-13 x 1-1/2" Grade 8 YZ Hex Head Cap Screw with Welded Tab
12	61075	1	1/2"-13 x 5" Grade 8 YZ Hex Head Cap Screw
13	61065	1	5/8"-11 x 4-1/2" Grade 8 YZ Hex Cap Screw
14	61064	1	5/8", 1-5/16" O.D., 21/32" I.D., YZ SAE Mil-Carb High-Strength Washer
15	61063	1	5/8"-11 Grade C Z Top Lock Nut
16	61068	2	M12-1.75 x 45 Grade 8.8 Z Hex Head Cap Screw
17	61070	2	M12 I.D., 24 O.D. Z Flat Washer
18	61271	2	M12-1.75 Class C Top Lock Nut
N/A	61078	1	1994-2000 Dodge 1500, 2500 & 3500 Series Hardware Kit - Kit Includes: Nos. 7 - 18

Note: The reference numbers listed identify parts shown in the illustration above. These numbers are specific to this illustration only and do not correspond with other diagrams in the manual. Always review the part number given for proper component identification.

TROUBLESHOOTING GUIDE

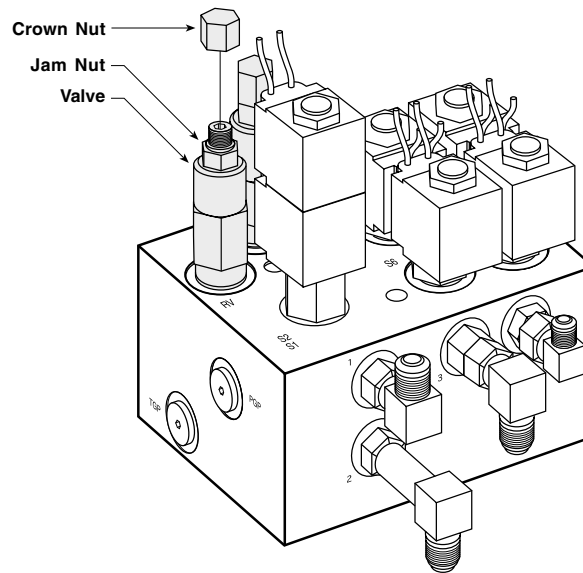
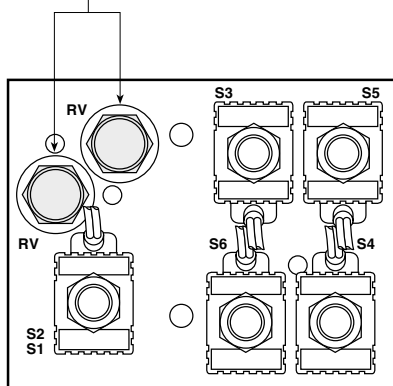
Prior to diagnosing your straight blade, verify that all connectors (plow and vehicle wire harness plugs, headlight adapters, control box, fused hot lead, draw latch switch, solenoid ground wire harness, coil wire lead harness, plow headlight harnesses) are free of corrosion and are well lubricated with white lithium grease. Insuring that all connectors are in good working order will save time in determining your snowplow's service needs.

Problem	Probable Cause(s)	Suggested Remedy
Pump will not run.	Plow wire harness and vehicle wire harness may not be properly connected.	Verify the wire harness is properly connected. Review the instruction on pages 8-11.
	Ground cables to the battery, manifold or solenoid may not be properly connected.	Properly connect all cables. Clean and lubricate with white lithium grease.
Pump will not run, no power to the solenoid.	The red, power wire and brown, activation wire on the solenoid are not properly connected.	Properly connect both cables. Test for power by initiating any joystick function except the float. Note: The POWER rocker switch must be in the "ON" position to properly test any plow function. No power, diagnose plow & truck wire harness.
Pump will not run with power to the solenoid.	The red, hot wire to the pump motor is not properly connected.	Connect red wire. If problem is not resolved, the solenoid could be seized or the pump motor may be worn. Replace solenoid.
Pump will not turn off.	Pump solenoid may be damaged.	Disconnect the brown activation wire from the solenoid. If the problem is not resolved, replace the solenoid.
	Diode pack may be corroded.	Clean diode pack thoroughly and/or replace.
	Short in the joystick control or wire harness.	Disconnect the joystick in the cab. If the solenoid turns off, there is a short in the electrical system.
Pump runs but plow functions are slow.	Fluid level in the pump reservoir is low. Fluid is leaking.	Add fluid to within 3/4" from the top of the tank. Check for leaks around the pump, manifold and cylinders.
	System pressure may be set too low.	Adjust the pressure. Remove the hex cap on top of the pump and turn the screw clockwise 1/8 turn. Proper system pressure should be set at 1500 PSI. Test functions and repeat procedure as needed.
	Voltage from the vehicle's alternator is too low.	Repair or replace vehicle alternator. Voltage must be no less than 11.8 volts.
	Pump filter may be clogged.	Remove the pump tank and thoroughly clean the filter.
A-frame latch will not move.	Draw latch is binding the A-frame latch.	Lift the draw latch to relieve binding on the A-frame latch and reposition the A-frame latch as needed.
Plow will not lift. Pump works properly.	Control station in the cab may not be properly connected.	Connect the power connector from the control to the vehicle wire harness.
	A-frame latch is in the (down) locked position.	Lift the A-frame latch into the raised position.
	Solenoid may be damaged.	Remove both S3 & S4 solenoids from the cartridge valves. Position a screwdriver inside of the solenoid and push the draw latch connect/disconnect toggle switch upward. The solenoid should be magnetically drawn to the screwdriver. Replace solenoid if there is no action.

Problem	Probable Cause(s)	Suggested Remedy
	Hydraulic lock in the manifold.	Loosen cartridge valve S3 or S4 to relieve pressure and retighten. DO NOT OVERTIGHTEN!
	Solenoid cartridge valve may be contaminated.	Remove any foreign objects that may be obstructing proper valve operation. Replace if not operating properly after cleaning.
Plow will not stay angled when plowing.	The angle pressure relief valve is set too low. NOTE: Increasing the pressure relief valve will cause damage to your plow. Do not set the pressure relief greater than 3000 PSI.	Follow the guidelines indicated above; however, the PSI setting should not exceed 3000 PSI. NOTE: If the plow is floating back when angled to the right, adjust the left pressure relief valve and vice versa.
Plow will not angle, pump works.	Review all probable causes above.	NOTE: Verify solenoids S1 & S2 for angle functions.

Should your snowplow develop other problems not indicated in the Troubleshooting Guide, contact your local dealer for technical assistance and/or replacement parts. Technical support can also be obtained calling our Customer Service Department toll free at 1-888-680-8600, Monday - Friday, 8AM - 5PM EST.

Angle Pressure Relief Valves





LIMITED CONSUMER WARRANTY

This warranty covers defects in material and workmanship except as set forth below.

WARRANTED PARTY:

This warranty applies only to the "Original Purchaser" who purchased this plow from an Authorized Blizzard Dealer, for personal, family or household use.

TERM OF WARRANTY:

This Blizzard Power Plow is warranted for the following period:
Parts and labor are warranted for one year from date of purchase.

BLIZZARD CORPORATION'S WARRANTY REMEDY:

Blizzard Corporation will, at its sole discretion, repair or replace defective parts at no charge.

CUSTOMERS RESPONSIBILITY:

To obtain warranty service, the purchaser must return the defective snowplow to any Authorized Blizzard Dealer. The purchaser must verify the original purchase date. Transportation costs to and from the dealer will be the responsibility of the purchaser.

ITEMS NOT COVERED UNDER THIS WARRANTY:

This limited warranty does not cover the following:

1. Expendable parts such as cutting edges, plow shoes, hoses, fasteners, blade guides, paint finish, etc.
2. Any snowplow or part thereof which has been repaired or altered by anyone other than an Authorized Blizzard Dealer.
3. Any snowplow or part thereof which has been subject to neglect, misuse, accident, improper installation, maintenance, or storage.
4. Snowplows mounted on vehicles other than those for whom Blizzard Corporation has provided a specific undercarriage system.
5. Blizzard Corporation does not assume liability for damage to the purchaser's vehicle resulting from the attachment and use of a Blizzard Power Plow. Vehicle risk is the sole responsibility of the purchaser.

WARRANTY LIMITATIONS:

THIS WARRANTY IS OFFERED IN LIEU OF ANY OTHER EXPRESS WARRANTY.

THE DURATION OF ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS WARRANTY.

BLIZZARD CORPORATION'S LIABILITY IS EXPRESSLY LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS. BLIZZARD CORPORATION SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY THE NEGLIGENCE OR FAULT OF BLIZZARD CORPORATION.

State Laws: Some states do not allow exclusion of incidental or consequential damages or the limitations on how long an implied warranty lasts, so these limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

This warranty does not apply if you purchased your snowplow for other than personal, family, or household use. If purchased for other than personal, family or household use, refer to the Blizzard Power Plow Commercial Warranty.



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1029-7-99 REV 11/00



COMMERCIAL WARRANTY

This warranty covers defects in material and workmanship except as set forth below.

WARRANTED PARTY:

This warranty applies only to the "Original Purchaser" who purchased this plow from an Authorized Blizzard Dealer, for commercial use.

TERM OF WARRANTY:

This Blizzard straight blade snowplow is warranted for the following period:
Parts and labor are warranted for one year from date of purchase.

BLIZZARD CORPORATION'S WARRANTY REMEDY:

Blizzard Corporation will, at its sole discretion, repair or replace defective parts at no charge.

CUSTOMERS RESPONSIBILITY:

To obtain warranty service, the purchaser must return the defective snowplow to any Authorized Blizzard Dealer within the warranty period. The purchaser must verify the original purchase date. Transportation costs to and from the Dealer will be the responsibility of the purchaser.

ITEMS NOT COVERED UNDER THIS WARRANTY:

This warranty does not cover the following:

1. Expendable parts such as cutting edges, plow shoes, hoses, fasteners, blade guides, paint finish, etc.
2. Any snowplow or part thereof which has been repaired or altered by anyone other than an Authorized Blizzard Dealer.
3. Any snowplow or part thereof which has been subject to neglect, misuse, accident, improper installation, maintenance, or storage.
4. Snowplows mounted on vehicles other than those for whom Blizzard Corporation has provided a specific undercarriage system.
5. Blizzard Corporation does not assume liability for damage to the purchaser's vehicle resulting from the attachment and use of a Blizzard straight blade snowplow. Vehicle risk is the sole responsibility of the purchaser.

LIMITS OF BLIZZARD CORPORATION'S LIABILITIES:

BLIZZARD CORPORATION'S LIABILITY IS EXPRESSLY LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS. BLIZZARD CORPORATION SHALL NOT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR CONTINGENT DAMAGES WHATSOEVER, EVEN IF DAMAGES ARE CAUSED BY THE NEGLIGENCE OR FAULT OF BLIZZARD CORPORATION.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESSED AND IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

This warranty does not apply if you purchased your snowplow for personal, family, or household use. In this case, refer to the Blizzard Power Plow Limited Consumer Warranty.



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1030-7-99 REV 11/00



2000/01 ASSEMBLY & OPERATION MANUAL
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